To: Gude, Karen[Gude.Karen@epa.gov]; Beauvais, Joel[Beauvais.Joel@epa.gov]; Grevatt,

Peter[Grevatt.Peter@epa.gov]; Neugeboren, Steven[Neugeboren.Steven@epa.gov]

Cc: Campbell, Ann[Campbell.Ann@epa.gov]

From: Burneson, Eric

Sent: Thur 1/5/2017 6:13:54 PM

Subject: RE: Water PAGs Meeting Thurs Jan 5 at 3 PM

Deliberative Process / Ex. 5

From: Gude, Karen

Sent: Thursday, January 05, 2017 12:15 PM

To: Beauvais, Joel <Beauvais.Joel@epa.gov>; Grevatt, Peter <Grevatt.Peter@epa.gov>;

Burneson, Eric <Burneson.Eric@epa.gov>; Neugeboren, Steven

<Neugeboren.Steven@epa.gov>

Cc: Campbell, Ann < Campbell. Ann@epa.gov>

Subject: RE: Water PAGs Meeting Thurs Jan 5 at 3 PM

Deliberative Process / Ex. 5

Karen Gude, Special Assistant

U.S. Environmental Protection Agency

Office of Water

Phone: (202) 564-0831

From: Gude, Karen

Sent: Tuesday, January 03, 2017 3:17 PM

To: Beauvais, Joel < <u>Beauvais.Joel@epa.gov</u>>; Grevatt, Peter < <u>Grevatt.Peter@epa.gov</u>>;

Burneson, Eric < Burneson. Eric @epa.gov>

Cc: Campbell, Ann < Campbell. Ann@epa.gov>; Greene, Ashley < Greene. Ashley@epa.gov>;

Gonzalez, Yvonne V. < Gonzalez. Yvonne@epa.gov > Subject: Water PAGs Meeting Thurs Jan 5 at 3 PM

Deliberative Process / Ex. 5

Karen

From: Diane D'Arrigo [mailto:dianed@nirs.org]

Sent: Tuesday, January 03, 2017 2:47 PM
To: Gude, Karen < Gude. Karen @epa.gov>

Cc: Geoff Fettus < gfettus@nrdc.org >; Emily Wurth < ewurth@fwwatch.org >; Paul Gallay

<<u>PGallay@riverkeeper.org</u>>; Damon Moglen <<u>dmoglen@foe.org</u>>; Catherine Thomasson

<<u>CThomasson@psr.org</u>>; Dalal Aboulhosn <<u>dalal.aboulhosn@sierraclub.org</u>>; Cindy Folkers

(cindy@beyondnuclear.org) < cindy@beyondnuclear.org>; Lynn Thorp CWA

<a href="mailto:slight-square;

- John.Coequyt@sierraciub.org; McKinzie, Matthew mmcKinzie@nrdc.org; Wenonan
Hauter (whauter@fwwatch.org) whauter@fwwatch.org; Jeff Carter jcarter@psr.org; Diane

D'Arrigo < dianed@nirs.org >

Subject: Water PAGs meeting Thurs jan 5 at 3 PM

Karen Gude
EPA Office of Water
Gude, Karen < Gude. Karen@epa.gov>
Jan 3, 2017
Dear Karen Gude:
Thank you for setting up the meeting on WATER PAGs Jan 5 th at 3 PM at the EPA East building at Federal Triangle with EPA Office of Water Assistant Administrator Joel Beauvais and Peter Grevatt, Director, Office of Ground Water & Drinking Water . The list of organizations attending is attached and could be added to as I continue to receive responses. We will have several (3-5) people joining by speaker phone, 2 of whom are confirmed and listed.
We very much need for the meeting to include both Charles Openchowski and Stuart Walker to participate as well who are quoted in the press release [pasted and highlighted below and link provided here] raising concerns about the Water PAGs back in 2010. http://www.peer.org/news/news-releases/radiation-exposure-debate-rages-inside-epa.html
Based on the FOIA materials received by PEER in December 2016, it appears that your Office of Water has not been briefed by OSWER or OGC or the critics of these Water PAGs from within EPA. Especially if you include OAR, you must include these individuals.
We believe it is essential to hear from them as well as our groups before the final decision.
Also I am attaching the letter I sent to Lisa Christ specifically outlining how the 2016 PAGs define Intermediate Phase and Incident important to the potential implementation of the Water PAGs.

THANK you so much,

Diane D'Arrigo

Nuclear Information and Resource Service

dianed@nirs.org

mobile 202 841 8588

office 302 270-6477 x 15



For Immediate Release: Apr 05, 2010

Contact: Kirsten Stade (202) 265-7337

RADIATION EXPOSURE DEBATE RAGES INSIDE EPA

Plan to Radically Hike Post-Accident Radiation in Food & Water Sparks Hot Dissent

Posted on Apr 05, 2010 | Tags: EPA

Washington, DC — A plan awaiting approval by the U.S. Environmental Protection Agency that would dramatically increase permissible radioactive releases in drinking water, food and soil after "radiological incidents" is drawing vigorous objections from agency experts, according to agency documents released today by Public Employees for Environmental Responsibility (PEER). At issue is the acceptable level of public health risk following a radiation release, whether an accidental spill or a "dirty bomb" attack.

The radiation arm of EPA, called the Office of Radiation and Indoor Air (ORIA), has prepared an update of the 1992 "Protective Action Guides" (PAG) governing radiation protection decisions for both short-term and long-term cleanup standards. Other divisions within EPA contend the ORIA plan geometrically raises allowable exposure to the public. For example, as **Charles Openchowski** of EPA's Office of General Counsel wrote in a January 23, 2009 e-mail to ORIA:

"[T]his guidance would allow cleanup levels that exceed MCLs [Maximum Contamination Limits under the Safe Drinking Water Act] by a factor of 100, 1000, and in two instances 7 million and there is nothing to prevent those levels from being the final cleanup achieved (i.e., it's not confined to immediate response of emergency phase)."

Another EPA official, **Stuart Walker** of the Office of Superfund Remediation and Technology Innovation, explains what the proposed new radiation limits in drinking water would mean:

"It also appears that drinking water at the PAG concentrations...may lead to subchronic (acute) effects following exposures of a day or a week. In a population, one should see some express acute effects...that is vomiting, fever, etc."

"This critical debate is taking place entirely behind closed doors because this plan is 'guidance' and does not require public notice as a regulation would," stated PEER Counsel Christine Erickson. Today, PEER sent EPA Administrator Lisa Jackson a letter calling for a more open and broader examination of the proposed radiation guidance. "We all deserve to know why some in the agency want to legitimize exposing the public to radiation at levels vastly higher than what EPA officially considers dangerous."

The internal documents show that under the updated PAG a single glass of water could give a

lifetime's permissible exposure. In addition, it would allow long-term cleanup limits thousands of times more lax than anything EPA has ever before accepted. These new limits would cause a cancer in as much as every fourth person exposed.

PEER obtained the internal e-mails after filing a lawsuit this past fall under the Freedom of Information Act (FOIA) but the EPA has yet to turn over thousands more communications. "EPA touts its new transparency but when it comes to matters of controversy the agency still puts up a wall," added Erickson, who filed the FOIA suit. "Besides the months of stonewalling, we are seeing them pull stunts such as ORIA giving us rebuttals to other EPA documents they have yet to release."

###

Deliberative Process / Ex. 5

To: Christ, Lisa[Christ.Lisa@epa.gov]

Cc: Mccarthy, Gina[McCarthy.Gina@epa.gov]; Beauvais, Joel[Beauvais.Joel@epa.gov]

From: Diane D'Arrigo

Sent: Mon 12/19/2016 7:37:23 AM
Subject: Urgent: WATER PAGs clarifications
WATER PAGs 12-18-16 letter to Lisa Christ.pdf

Dear Lisa Christ:

Please see the attached letter which I have compiled since our conversation last Tuesday December 13th, 2016 regarding EPA's Protective Action Guide for Drinking Water (Water PAGs) Could you please let me know *before the Water PAG is finalized* how the changes you told me about will be implemented?

You/EPA may need to change what is at OMB to be sure that what you believe is being accomplished is actually in the PAGs.

You told me in our phone conversation that EPA's latest Water PAGs that are at OMB were changed specifically, so that the Water PAGs will only apply for up to 1 year maximum and that they will only apply to incidents of national significance, not lesser accidents or releases.

The 2016 PAGs finalized on Dec 1, 2016 does not say that and must be changed to reflect this in the definitions and descriptions of "incident(s)" and of the "intermediate phase."

They currently indicate that phase could be for "years" and for a wide array of lesser releases, as documented in the attached letter.

If those statements in the overall PAG document are not being altered, any contrary statement in the drinking water section would arguably be nullified by or at minimum contradicted by contrary statements elsewhere in the overall document. If the contrary statements in the main body of the PAG document are not being fixed, then will the Water PAGs specifically state that the updated definitions you described to me will apply to the Water PAGs for drinking water *notwithstanding any other provision in the PAGs*?

The 2016 PAGs finalized on December 1, 2016 clearly state that the PAGs apply to "any release or potential release into the environment of radioactive materials in sufficient quantity to warrant consideration of protective actions." Thus they apply to many more incidents than a huge dirty bomb or nuclear power meltdown, indeed essentially any release of radioactivity for which protecting the public should be considered.

The 2016 PAGs finalized on December 1, 2016 and published on EPA's website indicate that *the intermediate phase can be for <u>years</u>—plural--and describe allowable doses for those years. For example, pg. 8 of the PAG states, "Intermediate phase PAGs are based on doses projected <i>in the first several years.*" (Emphasis added)

In the attached version of this letter, I am providing screen shots of **some of the places** in the 2016 PAG that need to be changed if what you told me is true. There are several places that indicate

- 1) the scope of the PAGs is broader than before and applies to a wide range of releases
- 2) the Intermediate Phase can last for multiple years.

There may be other places but these are the most obvious.

If these conflicting statements are not fixed to reflect what you told me EPA supposedly has decided to do, in response to public comments (i.e., limit the immediate phase to no more than 1 year and limit the scope of events covered to only very large events of national significance), any such language in the water section of the PAG will be at best contradicted by the statements elsewhere in the overall document. If truly EPA has decided to fix the problem, it needs to make the language consistent throughout, or at minimum, make clear that the time and scope limits for the water part of the PAG must be in force irrespective of any language elsewhere in the PAG.

Please let us know how these changes are being made, *before* EPA signs off on the Water PAGs and it becomes too late

The attached copy of this letter provides specific details and Screen Shots from 9 pages of the 2016 PAGs https://www.epa.gov/radiation/protective-action-guides-pags clearly documenting the public concerns about the WATER PAGs are still present in the 2016 PAGs. We appreciate your efforts at responding to these major public concerns and implore you to be sure the changes are truly being implemented, or reject the Water PAGs. Sincerely, Diane D'Arrigo Radioactive Waste Project Director Nuclear Information and Resource Service 6930 Carroll Ave Suite 340 Takoma Park, MD 20912 dianed@nirs.org 202 841 8588 mobile

Cc: Gina McCarthy, Joel Beauvais

To: Grevatt, Peter[Grevatt.Peter@epa.gov]; Beauvais, Joel[Beauvais.Joel@epa.gov]
Cc: Campbell, Ann[Campbell.Ann@epa.gov]; Christ, Lisa[Christ.Lisa@epa.gov]

From: Burneson, Eric

Sent: Wed 12/14/2016 2:12:04 PM
Subject: RE: Drinking Water PAG
TPs Rads PAG for Drinking Waterv2.docx

Ex. 5 - Deliberative Process

From: Grevatt, Peter

Sent: Tuesday, December 13, 2016 9:57 PM **To:** Beauvais, Joel <Beauvais.Joel@epa.gov>

Cc: Burneson, Eric <Burneson.Eric@epa.gov>; Campbell, Ann <Campbell.Ann@epa.gov>

Subject: Re: Drinking Water PAG

Ex. 5 - Deliberative Process

Sent from my iPhone

On Dec 13, 2016, at 9:41 PM, Beauvais, Joel < Beauvais. Joel@epa.gov > wrote:

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

From: Burneson, Eric

Sent: Tuesday, December 13, 2016 6:27 PM **To:** Beauvais, Joel; Campbell, Ann; Grevatt, Peter

Subject: RE: Drinking Water PAG

Attached for your review and consideration are some talking points on this.

From: Beauvais, Joel

Sent: Tuesday, December 13, 2016 5:27 PM

To: Campbell, Ann < Campbell. Ann@epa.gov>; Grevatt, Peter < Grevatt. Peter @epa.gov>;

Burneson, Eric < Burneson. Eric @epa.gov >

Subject: Re: Drinking Water PAG

Oops plus Eric

On Dec 13, 2016, at 5:26 PM, Beauvais, Joel Beauvais.Joel@epa.gov wrote:

Btw Peter/Eric it would be helpful to get TPs re what OMB is seeking and our response.

On Dec 13, 2016, at 5:24 PM, Beauvais, Joel < Beauvais. Joel@epa.gov > wrote:

FYI - I'll try to connect with Crystal on this tomorrow am

Begin forwarded message:

From: "Johnson, Katie B. B. EOP/OMB"

<<u>Katherine B Johnson@omb.eop.gov</u>>

Date: December 13, 2016 at 5:20:51 PM EST

To: "Beauvais, Joel EOP" <<u>beauvais.joel@epa.gov</u>>

Cc: "Vaught, Laura" < Vaught. Laura@epa.gov>

Subject: RE: Drinking Water PAG

So we brought this up and Howard wants to discuss it with you directly. I think Carl will reach out to try and schedule something tomorrow am. If he doesn't just have your assistant email him.

From: Beauvais, Joel [mailto:Beauvais.Joel@epa.gov]

Sent: Tuesday, December 13, 2016 1:43 PM

To: Johnson, Katie B. B. EOP/OMB
<<u>Katherine B Johnson@omb.eop.gov</u>>
Cc: Vaught, Laura <<u>Vaught.Laura@epa.gov</u>>

Subject: RE: Drinking Water PAG

K thx

From: Johnson, Katie B. B. EOP/OMB

[mailto:Katherine B Johnson@omb.eop.gov]
Sent: Tuesday, December 13, 2016 1:35 PM
To: Beauvais, Joel Beauvais, 2016 1:35 PM
Co: Vaught, Laura Vaught.Laura@epa.gov

Subject: RE: Drinking Water PAG

Hey – we are talking to Howard about this at 2:00 PM about this so should have a more robust update after that.

From: Beauvais, Joel [mailto:Beauvais.Joel@epa.gov]

Sent: Tuesday, December 13, 2016 12:02 PM

To: Johnson, Katie B. B. EOP/OMB
<<u>Katherine B Johnson@omb.eop.gov</u>>
Cc: Vaught, Laura <<u>Vaught.Laura@epa.gov</u>>

Subject: Drinking Water PAG

Hi, Katie – I know you're swamped, but just checking in on where things stand on this, as I need to circle back with the Administrator on it.

Joel

To: Beauvais, Joel[Beauvais.Joel@epa.gov]; Loop, Travis[Loop.Travis@epa.gov]

Cc: Grevatt, Peter[Grevatt.Peter@epa.gov]

From: Burneson, Eric

Sent: Mon 11/28/2016 10:33:09 PM

Subject: RE: Reasons for EPS's pending approval of radiation levels for drinking water far higher than

current levels?

Deliberative Process / Ex. 5

From: Beauvais, Joel

Sent: Monday, November 28, 2016 4:32 PM **To:** Loop, Travis < Loop. Travis@epa.gov>

Cc: Grevatt, Peter <Grevatt.Peter@epa.gov>; Burneson, Eric <Burneson.Eric@epa.gov> Subject: RE: Reasons for EPS's pending approval of radiation levels for drinking water far

higher than current levels?

Thanks – dropping Mark. Here are some proposed changes – let me know what you think. Peter/Eric – Let me know if you're comfortable with this or a version amended per any edits of yours going back out to Regions.

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

From: Loop, Travis

Sent: Monday, November 28, 2016 4:00 PM
To: Beauvais, Joel Beauvais.Joel@epa.gov

Cc: Rupp, Mark < Rupp. Mark@epa.gov >; Grevatt, Peter < Grevatt. Peter@epa.gov >; Burneson,

Eric < Burneson. Eric@epa.gov>

Subject: RE: Reasons for EPS's pending approval of radiation levels for drinking water far

higher than current levels?

Provided by OGWDW:

Deliberative Process / Ex. 5

Travis Loop

Director of Communications

Office of Water

U.S. Environmental Protection Agency

202-870-6922

loop.travis@epa.gov

From: Beauvais, Joel

Sent: Monday, November 28, 2016 12:30 PM **To:** Loop, Travis < <u>Loop. Travis@epa.gov</u>>

Cc: Rupp, Mark < Rupp. Mark@epa.gov >; Grevatt, Peter < Grevatt. Peter@epa.gov >; Burneson,

Eric < Burneson. Eric@epa.gov>

Subject: RE: Reasons for EPS's pending approval of radiation levels for drinking water far

higher than current levels?

Deliberative Process / Ex. 5

I'll work with OGWDW on something appropriate for use in response to these kinds of incomings.

Joel

From: Loop, Travis

Sent: Monday, November 28, 2016 12:23 PM **To:** Beauvais, Joel < Beauvais.Joel@epa.gov > Cc: Rupp, Mark < Rupp.Mark@epa.gov >

Subject: RE: Reasons for EPS's pending approval of radiation levels for drinking water far

higher than current levels?

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Travis Loop

Director of Communications Office of Water

U.S. Environmental Protection Agency

202-870-6922

loop.travis@epa.gov

From: Beauvais, Joel

Sent: Monday, November 28, 2016 12:22 PM To: Loop, Travis < Loop. Travis@epa.gov > Cc: Rupp, Mark < Rupp.Mark@epa.gov >

Subject: RE: Reasons for EPS's pending approval of radiation levels for drinking water far

higher than current levels?

Can I see the language so I can provide directly to Judith?

From: Loop, Travis

Sent: Monday, November 28, 2016 8:04 AM
To: Beauvais, Joel < Beauvais.Joel@epa.gov >
Cc: Rupp, Mark < Rupp.Mark@epa.gov >

Subject: Re: Reasons for EPS's pending approval of radiation levels for drinking water far

higher than current levels?

That language was provided to all PADs the week before last. But I will resend to R2.

Travis Loop

Communications Director for Water

U.S. Environmental Protection Agency

Phone: 202.870.6922

Follow us on Twitter @EPAwater

On Nov 28, 2016, at 7:43 AM, Beauvais, Joel < Beauvais. Joel @epa.gov > wrote:

Yep thx

On Nov 28, 2016, at 7:36 AM, Rupp, Mark < Rupp. Mark@epa.gov > wrote:

Deliberative Process / Ex. 5

On Nov 25, 2016, at 10:37 PM, Enck, Judith < Enck. Judith@epa.gov > wrote:

Deliberative Process / Ex. 5

Sent from my iPhone

On Nov 25, 2016, at 10:25 PM, Beauvais, Joel < Beauvais. Joel@epa.gov > wrote:

I gather you weren't able to make the WDD call on this earlier this week. I assume you've gotten the readout from Xavier but if you would like to discuss I'm happy to do so next week.

On Nov 25, 2016, at 10:20 PM, Enck, Judith < Enck. Judith@epa.gov > wrote: Lots of incoming emails and now phone calls each day Sent from my iPhone Begin forwarded message: From: Roxanne Warren < rwaa@erols.com> Date: November 25, 2016 at 5:31:48 PM EST To: 'judith Enck' < enck.judith@epa.gov> Subject: Reasons for EPS's pending approval of radiation levels for drinking water far higher than current levels? Dear Ms. Enck, Please send me an explanation of why EPA Administrator Gina McCarthy is on the verge of approving radiation levels that are hundreds and thousands of times higher than currently allowed in drinking water and at cleaned up Superfund sites. PAGs like this are mis-named "Protective" Action Guides for Drinking Water, since they do not protect the public from dangerous radioactivity. Rather, they protect the liability and profits of the energy company. I would appreciate hearing from you on this subject.

New York, NY 10025-1680

Roxanne Warren, AIA

Very truly yours,

rwarchitectsv42@gmail.com

www.vision42.org

To: Beauvais, Joel[Beauvais.Joel@epa.gov]; Grevatt, Peter[Grevatt.Peter@epa.gov]

From: Burneson, Eric

Sent: Mon 11/28/2016 8:50:11 PM

Subject: RE: New York Attorney General Comment Letter; EPA Proposed Drinking Water PAGs

Joel:

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Eric

From: Beauvais, Joel

Sent: Monday, November 28, 2016 11:53 AM

To: Grevatt, Peter <Grevatt.Peter@epa.gov>; Burneson, Eric <Burneson.Eric@epa.gov> **Subject:** FW: New York Attorney General Comment Letter; EPA Proposed Drinking Water

PAGs

Peter/Eric – See attached. A couple questions:

Deliberative Process / Ex. 5

From: Joshua Tallent [mailto:Joshua.Tallent@ag.ny.gov]

Sent: Monday, November 28, 2016 10:35 AM **To:** Beauvais, Joel < Beauvais.Joel@epa.gov>

Subject: New York Attorney General Comment Letter; EPA Proposed Drinking Water PAGs

Dear Deputy Assistant Administrator Beauvais:

Attached please find an electronic copy of a letter this office sent to the Office of Information and Regulatory Affairs at the Office of Management and Budget. The letter comments on the EPA's proposed Protective Action Guide for Drinking Water after a Radiological Event (81 Fed. Reg. 37,589). A paper copy of the letter will follow.

Yours truly,

Joshua Tallent

Assistant Attorney General

New York State Office of the Attorney General

The Capitol | Albany, New York 12224

(518) 776-2456

IMPORTANT NOTICE: This e-mail, including any attachments, may be confidential, privileged or otherwise legally protected. It is intended only for the addressee. If you received this e-mail in error or from someone who was not authorized to send it to you, do not disseminate, copy or otherwise use this e-mail or its attachments. Please notify the sender immediately by reply e-mail and delete the e-mail from your system.

To: Hernandez-Quinones, Samuel[Hernandez.Samuel@epa.gov]; Ellis, Jerry[Ellis.Jerry@epa.gov]

From: Christ, Lisa

Sent: Tue 1/19/2016 1:12:20 PM

Subject: FW: DATES: Sen. Markey Request on radioactive water PAGs

FYI – we would use the same briefing document that we used for Joel and OMB.

From: Veal, Lee

Sent: Thursday, January 14, 2016 6:07 PM **To:** Asher, Jonathan Asher, Jonathan@epa.gov

Cc: Edwards, Jonathan <Edwards.Jonathan@epa.gov>; DeCair, Sara

<DeCair.Sara@epa.gov>; Christ, Lisa <Christ.Lisa@epa.gov>; Burneson, Eric

<Burneson.Eric@epa.gov>

Subject: DATES: Sen. Markey Request on radioactive water PAGs

Jonathan,

We have coordinated with the OW on dates for the requested drinking water PAG discussion. Eric Burneson (OW) and Jon Edwards (ORIA) along with key staff can make these dates. We'd like to see if it is possible to set this up as a conference call as this should be a relatively concise discussion.

January 20, next Wednesday, between 11am and 1:30pm

January 25, Monday, between 10:30am and 2:30pm

Thank you

Lee

Lee Ann B. Veal

Director, Center for Radiological Emergency Management

Radiation Protection Division

Office of Radiation and Indoor Air

Office: 202-343-9448

Cell: 202-617-4322

www.epa.gov/radiation

From: Edwards, Jonathan

Sent: Thursday, January 07, 2016 12:42 PM

To: Asher, Jonathan <Asher.Jonathan@epa.gov>; Niebling, William

<Niebling.William@epa.gov>

Cc: Haman, Patricia < Haman.Patricia@epa.gov >; Flynn, Mike < Flynn.Mike@epa.gov >; Perrin,

Alan <<u>Perrin.Alan@epa.gov</u>>; Veal, Lee <<u>Veal.Lee@epa.gov</u>>; DeCair, Sara <<u>DeCair.Sara@epa.gov</u>>; Cherepy, Andrea <<u>Cherepy.Andrea@epa.gov</u>>

Subject: Re: Sen. Markey Request on radioactive water PAGs

Hi Jonathan -- Yes, we've talked with Dr. Freedhoff in Sen. Markey's office several times over the years on PAGs and they've followed our activities. OAR/ ORIA is the lead office for PAGs. Since this issue is specific to the drinking water portion of the PAGs, this briefing would also need to include OW / OGWDW representation -- which we can coordinate here in ORIA to make things more straightforward and then the OW folks would just need to FYI the appropriate folks in their front office and OCIR [water issues].

Key contacts here are me, Lee Veal, and Sara DeCair. Let me check with my folks on availability (and OW participation) and get back to you. In the past, we have done phone calls with Dr. Freedhoff, gone to the Hill, and she and other staff have even come down to visit us, so once we get a sense for our availability we can see what they have in mind.... --Jon

From: Asher, Jonathan

Sent: Thursday, January 7, 2016 11:46 AM **To:** Edwards, Jonathan; Niebling, William

Cc: Haman, Patricia

Subject: FW: Sen. Markey Request on radioactive water PAGs

Hi Jonathan,

I'm here in OCIR and am covering some of the radiation world while Josh is on detail. He recommended you as likely the best contact. I wanted to reach out on the below request for a briefing from Sen. Markey's office and see if this is something we might be able to set up and who the best person or people might be?

Let me know your thoughts, and thanks!

...also Jonathan

From: "Freedhoff, Michal (Markey)" < <u>Michal Freedhoff@markey.senate.gov</u>>

To: "Distefano, Nichole" < DiStefano. Nichole@epa.gov>

Cc: "Joseph, Avenel (Markey)" < Avenel Joseph@markey.senate.gov>

Subject: Fw: Letter from organizations opposing weakened radioactive water PAGs and requesting a meeting with OMB

Hi Nichole

We haven't worked together on this issue before, but wanted to flag it as one my boss has written to EPA about in the past and has a strong interest in. We'd like a briefing on this - in the new year is fine.

Thanks and happy holidays

Michal

Michal Ilana Freedhoff, Ph.D. Director of Oversight and Investigations Office of Senator Edward J. Markey (D-MA)

From: Diane D'Arrigo < dianed@nirs.org >

Sent: Tuesday, December 22, 2015 6:54 PM

To: hshelanski@omb.eop.gov; jlaity@omb.eop.gov; mechols@omb.eop.gov

Cc: mccarthy.gina@epa.gov; mccabe.janet@epa.gov; stoner.nancy@epa.gov; aastanislaus@epa.gov; Freedhoff, Michal (Markey); Poirier, Bettina (EPW); Diane D'Arrigo; McKinzie, Matthew; Allison Fisher; Catherine Thomasson; Damon Moglen; Cindy Folkers (cindy@beyondnuclear.org); Jeff Ruch (jruch@peer.org); Anna Aurilio; Deborah Brancato (dbrancato@riverkeeper.org); Wenonah Hauter (whauter@fwwatch.org); Lynn Thorp CWA; Dan Hirsch 2

Subject: Letter from organizations opposing weakened radioactive water PAGs and requesting a meeting with OMB

RE: EPA Protective Action Guidance, Radionuclides in Water

Administrator Shelanski

Director Jim Laity

Records Management Specialist Mabel Echols:

Please find pasted below, and attached, a letter from a dozen organizations regarding a proposed weakening of radiation protection standards for drinking water, recently submitted by EPA to OMB, and our request for a meeting on the subject before OMB acts. I have also attached a 2013 letter to EPA discussing their options at that time which would increase allowable radioactivity in drinking water to levels far in excess of Safe Drinking Water Act limits.

If you would like additional information or clarification, please let me know. I look forward to coordinating a meeting in the New Year on this important matter.

Sincerely,

Diane D'Arrigo

Nuclear Information and Resource Service

dianed@nirs.org

301 270 6477 x 15

Mobile 202 841 8588

(Point of Contact for Organizations listed)

Physicians for Social Responsibility * Natural Resources Defense Council

Friends of the Earth *Food and Water Watch

Clean Water Action *Public Citizen *Beyond Nuclear

Public Employees for Environmental Responsibility

Nuclear Information and Resource Service

Environment America * Riverkeeper

Committee to Bridge the Gap

Howard Shelanski, Administrator

Office of Information and Regulatory Affairs

Office of Management and Budget

725 17th Street, NW

Washington, DC 20503

December 22,

2015

Re: Proposed Amendments to EPA Protective Action Guidance (RIN 2060-ZA19)

On December 5 of this year, OMB received for review from the US EPA proposed changes to its Protective Action Guides (PAGs) for responding to radiological releases. Press reports indicate that the proposals would markedly increase the levels of allowable radioactive contaminants in drinking water. We write to inform you that such an effort would be met with a firestorm of controversy, and urge that the proposals be rejected. We also request a meeting/conference call with your senior staff tasked with the review.

Dear Administrator Shelanski:

Currently, protective actions are to be taken when radionuclide concentrations in drinking water exceed the Maximum Contaminant Limits of the Safe Drinking Water Act. Legal constraints (anti-backsliding requirements) prohibit EPA from relaxing those limits. However, there has been a long-standing push to undermine the Safe Drinking Water Act and allow vastly higher concentrations of radioactivity in water people consume.

This action, however, was too controversial for EPA to take when it published its PAGs a couple of years ago. So EPA published the PAGs without changing the water limits, but indicated it was interested at some time in the future in considering breaching the Safe Drinking Water Act limits for PAG purposes. We presume that that is what EPA has now transmitted to OMB for approval. This could result in the public being forced to consume water with concentrations of radionuclides hundreds or even thousands of times higher than considered acceptable under the Safe Drinking Water Act.

We want to alert you that such a proposal would be extraordinarily controversial. Scores of groups opposed such possible action in the past, and we believe this would be a high visibility matter of substantial concern to legislators, the news media, and the public. People would be extremely upset when they learn that the Obama Administration is contemplating imposing consumption of water with vastly higher concentrations of radioactivity than considered acceptable under the Safe Drinking Water Act.

Furthermore, the claim that there is no significant economic impact is incorrect. Were the Administration to force this proposal through, and a radiological release contaminated water far above longstanding acceptable levels, protective actions might not be taken. People would have to consume highly radioactive water. The affected area would likely shut down. Schools would close; businesses would be shuttered; people would move out rather than drink water with radioactivity concentrations far above what has been historically considered acceptable.

We ask you to not approve the extraordinarily controversial proposal, and we request a meeting or conference call to discuss the troubling nature of what is quietly being put forward.
Sincerely,
Daniel Hirsch, President
Committee to Bridge the Gap
Diane D'Arrigo, Director*

Radioactive Waste Project

Nuclear Information and Resource Service

Wenonah Hauter, Executive Director
Food and Water Watch
Catherine Thomasson, M.D.
Executive Director
Physicians for Social Responsibility
Damon Moglen, Senior Strategic Advisor
Friends of the Earth
Anna Aurilio, Washington DC Office Director
Environment America
Jeff Ruch, Executive Director
Public Employees for Environmental Responsibility
Matthew McKinzie, Ph.D.
Director, Nuclear Program
Natural Resources Defense Council
Lynn Thorp, National Campaigns Director
Clean Water Action

Deborah Brancato, Staff Attorney Riverkeeper Allison Fisher, Outreach Director Public Citizen Cindy Folkers, Radiation Specialist Beyond Nuclear * Point of contact: Diane D'Arrigo 301-270-6477 x 15 dianed@nirs.org cc: Senator Ed Markey Senator Barbara Boxer EPA Administrator Gina McCarthy Janet McCabe, EPA Assistant Administrator, Office of Air and Radiation Nancy Stoner, EPA Assistant Administrator, Office of Water Mathy Stanislaus, EPA Assistant Administrator, Office of Solid Waste and Emergency Response Jim Laity, OIRA, Natural Resources & Environment Branch Mabel Echols, OIRA, Records Management Specialist

To: Hernandez-Quinones, Samuel[Hernandez.Samuel@epa.gov]

Cc: Ellis, Jerry[Ellis.Jerry@epa.gov]

From: DeCair, Sara

Sent: Wed 1/8/2014 8:57:22 PM

Subject: A few more nuclides to consider, and briefing scheduling

MCL DRL with Bar Graph.xls

,,

Happy New Year Sam, Jerry,

I'm finally following up on our water discussion recently!

You asked if other nuclides would be of interest, and I'm attaching a highly sensitive, internal use only chart **Ex. 5 - Deliberative Process**

Ex. 5 - Deliberative Process

We talked about potentially briefing our ODs on the thinking so far, so that the work doesn't get too far before we have a good feeling from leadership. Can I start that scheduling process with Ginny, Mike Flynn's scheduler, and use you as OW's points of contact in addition to your OD's scheduler? If you say that's good, then I'll confirm with Lee and Jon and get the ball rolling for briefing time about a month from now.

Thanks for letting me know what you think, and I'll review this draft report now,

Sara

Sara D. DeCair

http://www.epa.gov/radiation/rert/pags.html

202-343-9108

To: Bangser, Paul[bangser.paul@epa.gov] From: Christ, Lisa Sent: Mon 11/7/2016 8:01:44 PM Subject: FW: Request for Review - DW PAG FRN Public Comments Draft DW PAG v2.docx SHQ Radiation Protective Action Guide Administrator Brief 9 29 16 v5.pptx EPA PAG Manual FRN OMB cmts done 10-18-2016.docx Hi Paul, I had a vm from you last week when I was out. Did you still have a question? I've been asked for the status of your review by OP. Please let me know when you expect to complete your review as this is time sensitive. Lisa From: Hernandez-Quinones, Samuel Sent: Wednesday, November 02, 2016 3:39 PM **To:** Bangser, Paul

bangser.paul@epa.gov> Cc: Wehling, Carrie < Wehling. Carrie@epa.gov >; Burneson, Eric < Burneson. Eric@epa.gov >; Huff, Lisa < Huff. Lisa@epa.gov>; Christ, Lisa < Christ. Lisa@epa.gov> Subject: RE: Request for Review - DW PAG FRN Hi Paul, Attached are the documents I mentioned during our call today. Let me know if you have any questions.

Sam

Thanks

Samuel Hernández Quiñones, P.E. Environmental Engineer

Office of Water

Environmental Protection Agency 1200 Pennsylvania Ave. NW Washington, DC 20460 202-564-1735

"USEPA Protecting Human Health and the Environment"

From: Wehling, Carrie

Sent: Tuesday, November 01, 2016 5:21 PM **To:** Bangser, Paul < bangser.paul@epa.gov >

Cc: Hernandez-Quinones, Samuel < Hernandez.Samuel@epa.gov >

Subject: FW: Request for Review - DW PAG FRN

Paul – For your review. Are you able to accommodate their schedule? Thanks.

Caroline (Carrie) Wehling

Assistant General Counsel

Water Law Office

U.S. Environmental Protection Agency

Washington DC 20004

202-564-5492

wehling.carrie@epa.gov

From: Hernandez-Quinones, Samuel

Sent: Tuesday, November 01, 2016 4:11 PM **To:** Wehling, Carrie < <u>Wehling.Carrie@epa.gov</u>>

Cc: Bangser, Paul < bangser.paul@epa.gov >; Huff, Lisa < Huff.Lisa@epa.gov >; Burneson, Eric

< Burneson. Eric@epa.gov >; Christ, Lisa < Christ. Lisa@epa.gov >

Subject: Request for Review - DW PAG FRN

Hi Carrie,

We are requesting OGC review for the attached FRN regarding the final drinking water PAG. Previously you reviewed our DW input for the PAG document, and we incorporated all your suggested edits. The DW PAG write-up is currently at OMB undergoing the interagency review.

We had initially planned to fold the DW input into the overall PAG Manual, but to due unforeseen delays we are changing our approach and we now are planning to issue the DW PAG separately from the overall PAG Manual. OMB has requested that we provide a FRN to announce the availability of the Drinking Water guidance.

Please let me know if it is possible to get your feedback to us by Tomorrow, otherwise let us know when we might expect to get some feedback from OGC. I now that most likely you have other important commitments previously scheduled, so I appreciate any support you can provide.

Thank You

Sam

Samuel Hernández Quiñones, P.E. Environmental Engineer Office of Water

Environmental Protection Agency 1200 Pennsylvania Ave. NW Washington, DC 20460 202-564-1735

"USEPA Protecting Human Health and the Environment"

To: DeCair, Sara[DeCair.Sara@epa.gov]

Cc: siddhanti@endyna.com[siddhanti@endyna.com], Marissa

McDonough[mmcdonough@endyna.com]

From: Miguel Tuason

Sent: Thur 11/10/2016 7:46:46 PM

Subject: CURRENT PAGS / for 3pm VERSION

EPA PAG Manual Final 11-10-2016.pdf

Hello, Sara -

Here is the latest version, with cover, and all changes incorporated (for the most part).

There are perhaps three or four consistency issues we were not able to address... Specifically, there were conflicting edits about whether or not to show the <u>URL ADDRESS</u> or the <u>TITLE</u> of resource) in the footnotes and table footnotes. We'd be happy to iron that out later once one approach has been decided.

The excerpt below shows both TITLES (footnote b) and URLs (footnote e) are used...

- a This guidance does not address or impact site cleanups occurring under other statutory authorities such as the United States Environmental Protection Agency's (EPA) Superfund program, the NRC's decommissioning program, or other federal or state cleanup programs.
- b Should begin at 1 rem (10 mSv); take whichever action (or combination of actions) that results in the lowest exposure for the majority of the population. Sheltering may begin at lower levels if advantageous.
- c Projected dose is the sum of the effective dose from external radiation exposure (e.g., groundshine and plume submersion) and the committed effective dose from inhaled radioactive material.
- d Provides thyroid protection from radioactive iodines only. See the complete 2001 FDA guidance, "Potassium Iodide as a Thyroid Blocking Agent in Radiation Emergencies." Further information is also available in "KI in Radiation Emergencies, 2001 Questions and Answers" 2002, and "Frequently Asked Questions on Potassium Iodide (KI)" 2016.
- e Thyroid dose. See Section 1.4.2. For information on radiological prophylactics and treatment other than KI, refer to http://www.fda.gov/Drugs/EmergencyPreparedness/BioterrorismandDrugPreparedness/ucm063807.htm 2014, https://www.emergency.cdc.gov/radiation 2014, and www.orau.gov/reacts.

f When radiation control options are not available, or, due to the magnitude of the incident, are not sufficient, doses to emergency workers above 5 rem (50 mSv) may be unavoidable and are generally approved by competent authority. For further discussion see Chapter 3, Section 3.1.2. Each emergency worker should be fully informed of the risks of

exposure they may experience and trained, to the extent feasible, on actions to be taken. Each emergency worker should make an informed decision as to how much radiation risk they are willing to accept to save lives.

g For more information on food and animal feeds guidance, the complete FDA guidance may be found at http://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM0945

h For extensive technical and practical implementation information please see "Preliminary Report on Operational Guidelines Developed for Use in Emergency Preparedness and Response to a Radiological Dispersal Device Incident" (DOE 2009).

Please let me or Marissa know if there's anything else you need today.

Thanks again.

Best

Miguel

Miguel Tuason SR BUSINESS DEVELOPMENT MANAGER EnDyna, Inc. 7926 Jones Branch Drive Suite 620 McLean, VA 22102 Tel: 703 848 8842 ext. 120

Cell: 571 218 7505 Fax: 703 848 9001 www.endyna.com

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To: DeCair, Sara[DeCair.Sara@epa.gov]; siddhanti@endyna.com[siddhanti@endyna.com]

Cc: Miguel Tuason[mtuason@endyna.com]

From: Marissa McDonough

Sent: Thur 11/10/2016 2:17:32 PM

Subject: Re: EPA PAG

EPA PAG Manual Final 11-10-2016.pdf

Hi Sara,

Not a problem. Attached is the final draft with the doc # incorporated on the cover page, and the header as requested. I'll be on standby to make the incorporated edits on pg. 18 and any additional edits thereafter.

Thanks,

-Rissa

Marissa K. McDonough, MPH
Environmental Health and Safety Specialist
EnDyna, Inc.
7926 Jones Branch Drive

Suite 620 McLean, VA 22102 Tel: 703 848 8842 ext. 121 Cell: 314.914.6126 Fax: 703 848 9001 www.endyna.com

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From: DeCair, Sara < DeCair. Sara@epa.gov>

Sent: Thursday, November 10, 2016 9:00:22 AM To: Marissa McDonough; Smita Siddhanti

Cc: Miguel Tuason Subject: RE: EPA PAG

Good deal! I have more markup starting on p. 18 so I will keep sending, I'm afraid we'll have to go back and forth this morning quite a bit. Keep in touch, I'm at my desk: 202-343-9108.

From: Marissa McDonough [mailto:mmcdonough@endyna.com]

Sent: Thursday, November 10, 2016 8:50 AM

To: DeCair, Sara <DeCair.Sara@epa.gov>; siddhanti@endyna.com

Cc: Miguel Tuason <mtuason@endyna.com>

Subject: Re: EPA PAG

Hi Sara,

Miguel came into the office several minutes ago and we are currently working on fixing the cover page. We will send you an updated document shortly.

Thanks,

Rissa

Marissa K. McDonough, MPH Environmental Health and Safety Specialist EnDyna, Inc.

7926 Jones Branch Drive Suite 620 McLean, VA 22102 Tel: 703 848 8842 ext. 121 Cell: 314.914.6126 Fax: 703 848 9001

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of the error by email reply.
From: Marissa McDonough Sent: Thursday, November 10, 2016 8:33:58 AM To: DeCair, Sara; Smita Siddhanti Cc: Miguel Tuason Subject: Re: EPA PAG
Hi Sara,
Attached is the Final Draft EPA PAG manual with your requested changes. I was able to put the document number on the cover page, in addition to the right hand side of the document header.
Please let me know if you have any questions or concerns.
Thanks,
-Rissa

Marissa K. McDonough, MPH Environmental Health and Safety Specialist

EnDyna, Inc. 7926 Jones Branch Drive Suite 620 McLean, VA 22102 Tel: 703 848 8842 ext. 121 Cell: 314.914.6126

Fax: 703 848 9001 www.endyna.com

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From: DeCair, Sara < DeCair.Sara@epa.gov > Sent: Wednesday, November 9, 2016 5:02:50 PM

To: Smita Siddhanti

Cc: Marissa McDonough; Miguel Tuason

Subject: RE: EPA PAG

Smita, we only have a small suggestion for the Manual so it can go up to our top brass (Janet) tomorrow about noon:

For right hand of each page header, instead of "November 2016" -- Document number here instead. (Then when we do Rev. 1, adding water section, we'll add that to the header.)

Thank you!! Try to have a relaxing evening, and we'll touch base tomorrow. S.

From: Smita Siddhanti [mailto:Siddhanti@endyna.com]
Sent: Wednesday, November 09, 2016 3:21 PM
To: DeCair, Sara < DeCair.Sara@epa.gov >
Subject: EPA PAG

Hi Sara,

I'm unsure with what's happening with the cover, however, the changes you requested have been made.

Sorry for the delay

-Smita

To: DeCair, Sara[DeCair.Sara@epa.gov]

From: Smita Siddhanti

Sent: Wed 11/9/2016 8:20:34 PM

Subject: EPA PAG EPA PAG Manual Final 11-08-2016.pdf

Hi Sara,

I'm unsure with what's happening with the cover, however, the changes you requested have been made.

Sorry for the delay

-Smita

To: Doster, Brian[Doster.Brian@epa.gov]

From: Schmidt, Lorie

Sent: Tue 12/20/2016 8:52:02 PM

Subject: FW: Ask Admin. McCarthy to Reject Water PAGs which Circumvent Safe Drinking Water MCL

and Superfund

WATER PAGS 12-18-16 letter to Lisa Christ.pdf request for EPA Admin McCarthy meeting 11-30-16.pdf

Yours?

Lorie Schmidt

Associate General Counsel, Air and Radiation

Office of General Counsel

US Environmental Protection Agency

(202)564-1681

From: Tim Judson [mailto:timj@nirs.org]
Sent: Tuesday, December 20, 2016 3:00 PM

To: Schmidt, Lorie <Schmidt.Lorie@epa.gov>; Goffman, Joseph <Goffman.Joseph@epa.gov>;

Michaud, John <Michaud.John@epa.gov>; Openchowski, Charles

<openchowski.charles@epa.gov>; Neugeboren, Steven <Neugeboren.Steven@epa.gov>

Cc: whauter@fwwatch.org; Catherine Thomasson < CThomasson@psr.org>; Damon Moglen

<DMoglen@foe.org>; Diane D'Arrigo <dianed@nirs.org>

Subject: Ask Admin. McCarthy to Reject Water PAGs which Circumvent Safe Drinking Water

MCL and Superfund

Memo TO: Legal counsel for Radiation, Water and Superfund offices

Joseph Goffman, Office of Radiation and Indoor Air

John Michaud, Solid Waste and Emergency Response Law Office

Steven Neugeboren, Water Law Office

Charles Openchowski, Office of Solid Waste and Emergency Response

Lorie Schmidt, Air and Radiation Law Office

From: Wenonah Hauter, Executive Director, Food and Water Watch

Tim Judson, Executive Director, Nuclear Information and Resource Service

Damon Moglen, Senior Strategic Advisor, Friends of the Earth

Catherine Thomasson, Executive Director, Physicians for Social Responsibility

Cc: Diane D'Arrigo, Radiative Waste Project Director, NIRS

Dear EPA Legal Counsel and Staff:

In the final days of this administration, we implore you to encourage Administrator McCarthy to reject the WATER PAGs-- EPA's Protective Action Guide for Drinking Water (Water PAGs). They are not needed as the Safe Drinking Water Act Maximum Concentration Levels (mcls) can be used for the "intermediate" phase after an "incident" AND there are water limits in the food portion of the 2016 PAG already.

Our organization and dozens of others including the major national environmental groups have been opposing the Water PAGs since they were first suggested. We have met with EPA staff and are awaiting a requested meeting with Administrator Gina McCarthy before she makes the final decision on them.

We ask for your voice opposing these unnecessary guides which provide an extremely dangerous opportunity to circumvent the Safe Drinking Water mcls, Superfund cleanup levels and the EPA's traditional 1 in a million to 1 in 10,000 allowable cancer risk range. Unless the 2016 PAGs adopted Dec 1, 2016 are changed in numerous places, the addition of the WATER PAG will circumvent these laws and practices.

OMB is poised to release the WATER PAGs at any moment and Administrator McCarthy is expected to approve their insertion into the 2016 PAGs.

Despite assurances to the contrary, the Water PAGs could be applied to relatively routine incidents such as spills and accidents, not just major Fukushima-level disasters or dirty bomb attacks and they could last for "years." Documentation of this is included in the attached letter to Lisa Christ in which we have provided screen shots from the 2016 PAGs that define and describe both "incidents" and the "intermediate phase." Simply dropping the Water PAGs into the 2016 PAGs could enable them to be implemented in this way.

Importantly page 1 Chapter 1 section 1.1 of the 2016 PAGs finalized on December 1, 2016 and published on EPA's website clearly states that the PAGs apply to "any release or potential release into the environment of radioactive materials in sufficient quantity to warrant

consideration of protective actions." This indicates they apply to many more incidents than a huge dirty bomb or nuclear power meltdown, indeed essentially any release of radioactivity for which protecting the public should be considered.

The 2016 PAGs clearly and repeatedly identify the "Intermediate" Phase after an "incident" as lasting weeks, months, a year and "subsequent years." We have been told the calculations done for the intermediate phase in the WATER PAGs were done with the assumption that they would only apply for a maximum of one year, but the larger 2016 PAG clearly envisions the possibility of that phase lasting longer. See the references and screen shots in the attached letter.

Finally, we call your attention to a recent investigative piece on the issue by NBC Bay Area, which can be watched at http://www.nbcbayarea.com/investigations/E-P-AS-NEW-EMERGENCY-PLAN-FOR-DRINKING-WATER-CONCERNS-MANY-401206656.html.

oactive

For over a decade the public has been commenting and opposing this weakening of radi water protection. We ask that you prevent that from happening in the final days of this administration.
Sincerely,
Wenonah Hauter
Executive Director
Food and Water Watch
Tim Judson
Executive Director
Nuclear Information and Resource Service
Damon Moglen
Senior Strategic Advisor
Friends of the Earth

Catherine Thomasson

Executive Director

Physicians for Social Responsibility

Tim Judson

Executive Director

Nuclear Information & Resource Service

6930 Carroll Avenue, Suite 340

Takoma Park, MD 20912

www.nirs.org

O: 301-270-6477

F: 301-270-4291

E: timj@nirs.org

To: Openchowski, Charles[openchowski.charles@epa.gov]; Tyner, Lee[tyner.lee@epa.gov]; Salo, Earl[Salo.Earl@epa.gov]; Lewis, Jen[Lewis.Jen@epa.gov]; Michaud, John[Michaud.John@epa.gov];

Bangser, Paul[bangser.paul@epa.gov]; Wehling, Carrie[Wehling.Carrie@epa.gov]

Cc: Doster, Brian[Doster.Brian@epa.gov]

From: Stahle, Susan

Sent: Thur 12/17/2015 6:51:04 PM

Subject: HEADS UP - Finalizing revisions to PAG Manual - attached for your review - comments likely

due mid to late January 2016

Cmt Resolution 12-14-2015.xlsx

Redline PAG Manual 12-14-2015.docx

FR Notice - Proposed Manual - 041513.pdf

Hello -

As you may recall, back in 2013 EPA published a notice of availability in the Federal Register (see attached) seeking public notice and comment on proposed revisions to the guidance document entitled "PAG Manual, Protection Action Guides and Planning Guidance for Radiological Incidents." EPA is now ready to move forward and finalize the Manual with certain revisions based on the public comments received. It appears EPA is hoping to issue a final Manual sometime in the August/September 2016 timeframe (our clients are currently discussing the schedule for this project).

Brian Doster and I have been in a couple of meetings this week with our client offices in which we first learned the details of this project. We had hoped to meet with all of you and share what we learned at those meetings, but given the holidays and many being out of the office at various times over the next three weeks, we thought it best to first get you the relevant documents. We will look to schedule that meeting in early January for that discussion.

Briefly, let me explain what is attached.

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Please let me know if you have any questions or need further information.

Thanks,

Susan Stahle

Attorney-Advisor

Air and Radiation Law Office

Office of General Counsel

U.S. Environmental Protection Agency

202-564-1272 (ph)

202-564-5603 (fax)

stahle.susan@epa.gov



miscellaneous oil spill control agents. As of March, 2013, 112 products are listed on the Schedule. It is estimated that 11 products per year will be submitted to EPA for listing on the Schedule. Over the three-yearperiod covered by this ICR, an estimated 33 products may be listed. Additionally, EPA estimates that approximately 10 manufacturers will submit information to obtain sorbent certifications. The annual public reporting burden will be 315 hours. The total annual cost (including labor and non-labor)to manufacturers under Subpart J is estimated to be \$88,743.

At 40 CFR 300.920(c), respondents are allowed to assert that certain information in the technical product data submissions is confidential business information. EPA will handle such claims pursuant to the provisions in 40 CFR Part 2, Subpart B. Such information must be submitted separately from non-confidential information, clearly identified, and clearly marked "Confidential Business Information." If the applicant fails to make such a claim at the time of submittal, EPA may make the information available to the public without further notice.

Form Numbers: None. Respondents/affected entities:
Respondents include, but are not limited to, manufacturers of bioremediation agents, dispersants, surface collecting agents, surface washing agents, miscellaneous oil spill control agents, and other chemical agents and biological additives used as countermeasures against oil spills. Affected private industries can be expected to fall within the following industrial classifications:

- Manufacturers of industrial inorganic chemicals (SIC 281/NAICS 325188),
- Manufacturers of industrial organic chemicals (SIC 286/NAICS 325199), and
- Manufacturers of miscellaneous chemical products (SIC 289/NAICS 325988)

Respondent's obligation to respond: An oil spill mitigating agent does not have to be listed on the Product Schedule unless a manufacturer wants the product to be applied as part of an emergency response to an oil spill. If so, then certain mandatory product testing and information is required to be considered for listing on the Schedule. (The Schedule is required by section 311(d)(2)(G) of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990).

Estimated number of respondents: Eleven per year. There are 96 manufacturers and 112 products (26

bioremediation agents, 18 dispersants, 14 miscellaneous agents, and 53 surface washing agents, 2 surface collecting agents) listed on the March, 2013 Schedule. EPA estimates that manufacturers will apply to list 11 products on the Schedule each year, including 2 bioremediation agents, 3 dispersants, 2 miscellaneous agents, 1 surface collecting agent, and 3 surface washing agents. Over a three-year period, EPA anticipates that manufacturers will apply to list a total of 6 bioremediation agents, 9 dispersants, 6 miscellaneous agents, 3 surface collecting agent, and 9 surface washing agents on the Schedule.

Frequency of response: Each manufacturer responds one time per product submittal.

Total estimated burden: 315 hours (per year). Burden is defined at 5 CFR 1320.03(b).

Total estimated cost: \$ 72,450 (per year).

Changes in estimates: There is a decrease in burden hours and cost. All regulatory requirements are the same as in 2010. There is a decrease in total cost of \$10,550 due to less manufacturers applying to list products (11 instead of 14 per year) on the Schedule even though laboratory pricing and labor rates have risen.

Dana S. Tulis,

Deputy Director, Office of Emergency Management.

[FR Doc. 2013–08702 Filed 4–12–13; 8:45 am] BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OAR-2007-0268; FRL-9707-2]

Updates to Protective Action Guides Manual: Protective Action Guides (PAGs) and Planning Guidance for Radiological Incidents

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of document availability for interim use and public comment.

SUMMARY: As part of its mission to protect human health and the environment, the Environmental Protection Agency (EPA) publishes protective action guides to help federal, state, local and tribal emergency response officials make radiation protection decisions during emergencies. EPA, in coordination with a multi-agencyworking group within the Federal Radiological Preparedness Coordinating Committee (FRPCC), is proposing updates to the 1992 Manual

of Protective Action Guides and Protective Actions for Nuclear Incidents, referred to as "The 1992 PAG Manual" (EPA 400–R–92–001, May 1992).

The updated guidance in this revised 2013 PAG Manual—Protective Action Guides and Planning Guidance for Radiological Incidents ("2013 PAG Manual" hereafter) applies the PAGs to incidents other than just nuclear power plant accidents, updates the radiation dosimetry and dose calculations based on current science and incorporates late phase guidance.

While there is no drinking water PAG provided in the proposal, the Agency continues to seek input on this. The newly proposed 2013 PAG Manual is available for interim use and review at www.regulations.gov.

DATES: Comments must be received on or before July 15, 2013.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2007-0268, by one of the following methods—

- www.regulations.gov: Follow the on-lineinstructions for submitting comments.
- Email: to a-and-r-docket@epa.gov;
 Docket ID No. EPA-HQ-OAR-2007-0268.
 - Fax: (202) 566–1741
- Mail: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 6102T, 1200 Pennsylvania Ave NW., Washington, DC 20460.

Instructions: Direct your comments to Attn: Docket ID No. EPA-HQ-OAR-2007-0268. The Agency's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or email. The www.regulations.gov Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through www.regulations.gov, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you

include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption and be free of any defects or viruses. For additional information about EPA's public docket, visit the EPA Docket Center homepage at http://www.epa.gov/epahome/dockets.htm.

Docket: All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. EPA has established a docket for this action under Docket ID No. [EPA-HQ-OAR-2007-0268; FRL-9707-2]. Publicly available docket materials are available either electronically through www.regulations.gov or in hard copy at the Air and Radiation Docket in the EPA Docket Center, (EPA/DC) EPA West Room 3334, 1301 Constitution Ave NW., Washington, DC 20004. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744 and the telephone number for the Air and Radiation Docket is (202) 566-1742. In accordance with EPA's regulations at 40 CFR Part 2 and in accordance with normal EPA docket procedures, if copies of any docket materials are requested, a reasonable fee may be charged for photocopying.

FOR FURTHER INFORMATION CONTACT: Sara DeCair, Radiation Protection Division, Center for Radiological Emergency Management, Mail Code 6608J, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460; telephone number: (202) 343–9108; fax number: (202) 343–2304; Email: decair.sara@epa.gov.

SUPPLEMENTARY INFORMATION:

A. What authority does EPA have to provide Protective Action Guidance?

The historical and legal basis of EPA's role in the 2013 PAG Manual begins with Reorganization Plan No. 3 of 1970, in which the Administrator of EPA assumed all the functions of the Federal Radiation Council (FRC), including the charge to "* * * advise the President with respect to radiation matters, directly or indirectly affecting health,

including guidance for all federal agencies in the formulation of radiation standards and in the establishment and execution of programs of cooperation with states." (Reorg. Plan No. 3 of 1970, sec. 2(a) (7), 6(a) (2); §274.h of the Atomic Energy Act of 1954, as amended (AEA), codified at 42 U.S.C. 2021(h)). Recognizing this role, FEMA directed EPA in their Radiological Emergency Planning and Preparedness Regulations to "establish Protective Action Guides (PAGs) for all aspects of radiological emergency planning in coordination with appropriate federal agencies." (44 CFR 351.22(a)). FEMA also tasked EPA with preparing "guidance for state and local governments on implementing PAGs, including recommendations on protective actions which can be taken to mitigate the potential radiation dose to the population." (44 CFR 351.22(b)). All of this information was to "be presented in the Environmental Protection Agency (EPA) 'Manual of Protective Action Guides and Protective Actions for Nuclear Incidents." (44 CFR 351.22(b)).

Additionally, section 2021(h) charged the Administrator with performing "such other functions as the President may assign to him [or her] by Executive order." Executive Order 12656 states that the Administrator shall "[d]evelop, for national security emergencies, guidance on acceptable emergency levels of nuclear radiation * * *." (Executive Order No. 12656, sec.1601(2)). EPA's role in PAGs development was reaffirmed by the National Response Framework, Nuclear/Radiological Incident Annex of June 2008.

B. What is the PAG Manual: Protective Action Guides and Planning Guidance for Radiological Incidents?

The 2013 PAG Manual provides federal, state and local emergency management officials with guidance for responding to radiological emergencies. A protective action guide (PAG) is the projected dose to an individual from a release of radioactive material at which a specific protective action to reduce or avoid that dose is recommended. Emergency management officials use PAGs for making decisions regarding actions to protect the public from exposure to radiation during an emergency. Such actions include, but are not limited to, evacuation, shelterin-place, temporary relocation, and food restrictions.

Development of the PAGs was based on the following essential principles, which also apply to the selection of any protective action during an incident—

· Prevent acute effects.

- Balance protection with other important factors and ensure that actions result in more benefit than harm.
- · Reduce risk of chronic effects. The 2013 PAG Manual is not a legally binding regulation or standard and does not supersede any environmental laws; PAGs are not intended to define "safe" or "unsafe" levels of exposure or contamination. This guidance does not address or impact site cleanups occurring under other statutory authorities such as the United States Environmental Protection Agency's (EPA) Superfund program, the Nuclear Regulatory Commission's (NRC) decommissioning program, or other federal or state cleanup programs. As indicated by the use of non-mandatory language such as "may," "should" and "can," the 2013 Manual only provides recommendations and does not confer any legal rights or impose any legally binding requirements upon any member of the public, states, or any other federal agency. Rather, the 2013 PAG Manual recommends projected radiation doses at which specific actions may be warranted in order to reduce or avoid that dose. The 2013 PAG Manual is designed to provide flexibility to be more or less restrictive as deemed appropriate by decision makers based on the unique characteristics of the incident and the local situation

C. What updates are in the 2013 PAG Manual?

The draft updates to the 1992 PAG Manual were developed by a multiagency Subcommittee of the Federal Radiological Preparedness Coordinating Committee (FRPCC) and are published by EPA with concurrence from the Department of Energy (DOE); the Department of Defense (DoD); the Department of Homeland Security (DHS), including the Federal Emergency Management Agency (FEMA); the Nuclear Regulatory Commission; the Department of Health and Human Services (HHS), including both the Centers for Disease Control (CDC) and the Food and Drug Administration (FDA); the U.S. Department of Agriculture (USDA); and the Department of Labor (DOL).

The 2013 PAG Manual focuses on the following key objectives—

Clarify that the 1992 PAGs and protective actions are useful for all radiological and nuclear scenarios of concern, based both on the 1991 symposium, "Implementation of Protective Actions for Radiological Incidents at Other Than Nuclear Power Reactors" and the 2008 interagency "Planning Guidance for Protection and

Recovery Following Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents." ¹

- Refer the reader to DOE's Federal Radiological Monitoring and Assessment Center (FRMAC) Assessment Manuals² for calculation methods and measurable derived response levels (DRLs) and other appropriate dose assessment methods so that PAGs are implemented using the latest science.
- Refer users to the current Food PAGs published in FDA's "Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies," as issued in 1998.3
- Recommend a simplified PAG approach for administering potassium iodide (KI) as a supplementary protective action based on FDA guidance issued in 2001.⁴
- Provide basic planning guidance on reentry, cleanup and waste disposal.
- Substantively incorporate the 2008 "Planning Guidance for Protection and Recovery Following Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents" particularly for late phase cleanup after a nationally significant radiological incident, like a disaster at a NPP, an RDD or an IND. The 2008 RDD—IND Planning Guidance will remain in effect until the PAG Manual, with public comments incorporated, is finalized for use.
- Streamline the Manual to enhance usability, while retaining the 1992 PAG Manual in its entirety as a historical online reference.

D. What should I consider as I prepare my comments for EPA?

1. Submitting Confidential Business Information (CBI)

Do not submit this information to EPA through www.regulations.gov or email. Clearly mark all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is

claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

Tips for Preparing Your Comments When submitting comments,

- remember to—
 Identify the rulemaking by docket number, subject heading, Federal Register date and page number.
- Follow directions—EPA may ask you to respond to specific questions or organize comments by referencing the chapter number.
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/ or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow it to be reproduced.
- Illustrate your concerns with specific examples and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified.

E. What specific comments are being sought?

While all comments regarding any aspect of the 2013 PAG Manual are welcome, comments on the following issues are specifically requested—

Issues across the scope of the entire 2013 PAG Manual:

· To implement the PAGs, the reader is referred to dose calculations in the Federal Radiological Monitoring and Assessment Center (FRMAC) Assessment Manuals. The Assessment Manuals are updated with current International Commission on Radiological Protection (ICRP dosimetry models (i.e., ICRP 60 series) and dose coefficients. The FRPCC also encourages the use of computational tools such as DOE's Turbo FRMAC, RESRAD RDD and NRC's RASCAL or other appropriate tools and methods to implement the PAGs. We request comment on the usefulness of this approach and seek feedback on how to facilitate implementation of these methods in emergency management plans.

 The Agency recognizes a short-term emergency drinking water guide may be useful for public health protection in light of the Fukushima nuclear power plant accident, which impacted some Japanese drinking water supplies. Input on the appropriateness of, and possible values for, a drinking water PAG is being sought.

• FDA's 1998 food guidance is incorporated by reference. Since it is already final and published, comments are not requested on the Food PAGs.

Chapter 2-Early Phase:

- The most substantive PAG change in the Early Phase is the 2001 guidance from the FDA that lowers the threshold for administration of potassium iodide (KI) to the public from 25 rem projected adult thyroid dose to 5 rem projected child thyroid dose. Chapter 2 includes a streamlined implementation scheme based on FDA's guidance. Please comment on the usefulness of this simplified guidance in the text of Chapter 2.
- The skin and thyroid evacuation thresholds were removed to avoid confusion with the KI threshold. The skin and thyroid doses were 5 and 50 times higher, respectively, than the 1 to 5 rem whole-bodydose guideline. Please comment specifically on the appropriateness of not retaining the skin and thyroid evacuation thresholds.

Chapter 3—Intermediate Phase:
• The most substantive PAG change in the Intermediate Phase is the removal of the 5 rem over 50 years relocation PAG which was potentially being confused with long term cleanup. Please comment on the appropriateness of this change.

- As an extension of the PAGs, new guidance on reentry to relocation areas is provided to inform plans and procedures to protect workers and members of the public as the Intermediate Phase progresses. Please comment on the format and utility of this material
- Please comment on whether it would be useful to develop a new, combined Intermediate Phase PAG considering all exposure pathways to potentially simplify decision making. Chapter 4—Late Phase:
- A brief planning guidance on the cleanup process is included. Please comment on the usefulness of this information, as well as how it might best be implemented in state, tribal and local plans. It should be noted that the extent and scope of contamination as a result of an NPP, RDD or IND incident may be at a much larger scale than a site or facility decommissioning or remedial cleanup normally experienced under established regulatory frameworks.

¹ Planning Guidance for Protection and Recovery Following Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents, DHS/ FEMA (73 FR 45029, Aug 1, 2008).

² See: http://www.nv.doe.gov/nationalsecurity/homelandsecurity/frmac/manuals.aspx.

³ Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies, FDA (63 FR 43402, Aug 13, 1998).

⁴ Guidance: Potassium lodide as a Thyroid Blocking Agent in Radiation Emergencies, FDA (66 FR 64046, Dec. 11, 2001).

Lesser radiological incidents may be well addressed under existing emergency response and environmental cleanup programs.

- A suggested process and organization for approaching the late phase cleanup is provided from the 2008 RDD-INDPlanning Guidance.
 Please comment on the merging of that guidance with the 2013 PAG Manual.
- Basic planning guidance on approaching radioactive waste disposal is included. Please comment on this material and how it should be implemented in emergency response and recovery plans at all levels of government.

After considering public comments as appropriate, EPA intends to issue a final PAG Manual which will supersede the 1992 PAG Manual and the 2008 RDD—IND Planning Guidance.

Dated: April 5, 2013.

Bob Perciasepe,

Acting Administrator.

[FR Doc. 2013-08666 Filed 4-12-13; 8:45 am]

BILLING CODE 6560-50-P

EXPORT-IMPORT BANK

Sub-Saharan Africa Advisory Committee of the Export-Import Bank of the United States (Ex-Im Bank); Notice of Open Special Meeting

SUMMARY: The Sub-SaharanAfrica
Advisory Committee was established by
Public Law 105–121, November 26,
1997, to advise the Board of Directors on
the development and implementation of
policies and programs designed to
support the expansion of the Bank's
financial commitments in Sub-Saharan
Africa under the loan, guarantee, and
insurance programs of the Bank.
Further, the Committee shall make
recommendations on how the Bank can
facilitate greater support by U.S.
commercial banks for trade with SubSaharan Africa.

Time and Place: Tuesday, April 30, 2013, between 11:00 a.m. and 3:00 p.m. A break for lunch will be at the expense of the attendee. Security processing will be necessary for reentry into the building. The meeting will be held at Ex-ImBank in the Main Conference Room 326, 811 Vermont Avenue NW., Washington, DC 20571.

Agenda: Presentation on recent developments in Sub-SaharanAfrica markets by Ex-ImBank staff; an update on the Bank's on-goingbusiness development initiatives in the region; and Committee discussion of current challenges and opportunities for U.S. exporters.

Public Participation: The meeting will be open to public participation and the last 10 minutes will be set aside for oral questions or comments. Members of the public may also file written statement(s) before or after the meeting. If you plan to attend, a photo ID must be presented at the guard's desk as part of the clearance process into the building and you may contact Exa Richards to be placed on an attendee list. If any person wishes auxiliary aids (such as a sign language interpreter) or other special accommodations, please contact, prior to April 22, 2013, Exa Richards, 811 Vermont Avenue NW., Washington, DC 20571, (202) 565-3455.

FURTHER INFORMATION: For further information, contact Exa Richards, 811 Vermont Avenue NW., Washington, DC 20571, (202) 565–3455.

Sharon Whitt,

Director, Information Quality and Records Management.

[FR Doc. 2013–08776 Filed 4–12–13; 8:45 am]

BILLING CODE 6690-01-P

FEDERAL COMMUNICATIONS COMMISSION

Information Collection Being Submitted to the Office of Management and Budget for Review and Approval

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burden and as required by the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501-3520), the Federal Communications Commission invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s). Comments are requested concerning: whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information burden for small business concerns with fewer than 25 employees. The FCC may not conduct or sponsor a collection of

information unless it displays a currently valid OMB control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a valid OMB control number.

DATES: Written Paperwork Reduction Act (PRA) comments should be submitted on or before May 15, 2013. If you anticipate that you will be submitting PRA comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the FCC contact listed below as soon as possible.

ADDRESSES: Submit your PRA comments to Nicholas A. Fraser, Office of Management and Budget, via fax at 202–395–5167 or via Internet at Nicholas_A._Fraser@omb.eop.gov and to Benish Shah, Federal Communications Commission, via the Internet at Benish.Shah@fcc.gov. To submit your PRA comments by email send them to: PRA@fcc.gov.

FOR FURTHER INFORMATION CONTACT: Benish Shah, Office of Managing Director, (202) 418–7866.

SUPPLEMENTARY INFORMATION:

OMB Control No.: 3060–0953.
Title: Sections 95.1111 and 95.1113,

Frequency Coordination/Coordinator, Wireless Medical Telemetry Service. Form No.: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other forprofit and not-for-profitnstitutions. Number of Respondents: 3,000

respondents; 3,000 responses.

Estimated Time per Response: 1

Estimated Time per Response: 1–4 hours.

Frequency of Response: On occasion reporting requirement, third party disclosure requirement and recordkeeping requirement.

Obligation To Respond: Required to obtain or retain benefits.

Total Annual Burden: 12,000 hours. Total Annual Cost: \$600,000. Privacy Act Impact Assessment: N/A. Nature and Extent of Confidentiality: No information is requested that would

No information is requested that would require assurance of confidentiality.

Needs and Uses: The Commission will submit this information collection to OMB as an extension (there has been an adjustment in the reporting, recordkeeping requirements and/or third party disclosure requirements, the number of respondents/operators increased from 2,728 to 3,000, therefore, the annual burden and cost has also increased) after this 60 day comment period to obtain the full three-year clearance from them.

To: Doster, Brian[Doster.Brian@epa.gov]

From: Stahle, Susan

Sent: Wed 4/1/2015 5:38:20 PM

Subject: FW: Heads up: New PAG proposal for OGC review soon

FYI

Susan Stahle

Attorney-Advisor

Air and Radiation Law Office

Office of General Counsel

U.S. Environmental Protection Agency

202-564-1272 (ph)

202-564-5603 (fax)

stahle.susan@epa.gov

From: DeCair, Sara

Sent: Wednesday, April 01, 2015 8:34 AM

To: Stahle, Susan

Cc: Christ, Lisa; Hernandez-Quinones, Samuel; Ellis, Jerry; Veal, Lee

Subject: Heads up: New PAG proposal for OGC review soon

Sue,

I spotted you across the room at the 192 hearing recently – it has been a while since we've talked about PAGs, though! Just giving you a bit of warning that we have a new proposal, a drinking water PAG (so a subset of the full PAG Manual) that we will be submitting to you and your Water counterparts for review prior to Office of Policy submission. We hope that this proposal fills a gap highlighted in public comments on the 2013 revision, and once we get public input then we hope to drop it into a complete final PAG Manual in 2016.

Ex. 5 - Deliberative Process

Sara D. DeCair

http://www.epa.gov/radiation/rert/pags.html

202-343-9108

new office

Room 1416 B in WJC West

To: Stahle, Susan[Stahle.Susan@epa.gov]

From: Doster, Brian

Sent: Fri 1/29/2016 7:37:28 PM

Subject: RE: Discussion of PAG Manual Finalization - need WLO comments by tomorrow

(January 29)

PAG manual - draft final - with OGC edits - 012916 + bld.docx

Thanks for pulling this together with some time for me to take a look. I skimmed through it to get a feel for the content in the document overall and reviewed all the comments we are submitting. Your comments look thoughtful and helpful, as do those of our colleagues in other law offices. I had few minor suggestions to clarify language in some places where you had commented or that I otherwise noticed. These are only on pages 8-9 and 32-33. Please pass this along to ORIA with an adjustments that are appropriate on the outstanding WLO issue on page 43. Nice job.

From: Stahle, Susan

Sent: Friday, January 29, 2016 11:13 AM **To:** Doster, Brian
Coster
Doster
January
January
29
January
<pr

Subject: RE: Discussion of PAG Manual Finalization - need WLO comments by tomorrow

(January 29)

Here are collective edits from OGC, which means Charles, Lee, Paul and me. I will send this to ORIA by the end of today.

<< File: PAG manual - draft final - with OGC edits - 012916.docx >>

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Doster, Brian

Sent: Thursday, January 28, 2016 10:30 AM **To:** Stahle, Susan < Stahle.Susan@epa.gov>

Subject: FW: Discussion of PAG Manual Finalization - need WLO comments by tomorrow

(January 29)

Ex. 5 - Deliberative Process

From: Bangser, Paul

Sent: Thursday, January 28, 2016 9:59 AM

To: Stahle, Susan < Stahle.Susan@epa.gov >; Wehling, Carrie < Wehling.Carrie@epa.gov >

Cc: Doster, Brian < Doster. Brian@epa.gov>

Subject: RE: Discussion of PAG Manual Finalization - need WLO comments by tomorrow (January 29)

Hi Susan,

Ex. 5 - Deliberative Process

Thanks,

Paul Bangser Attorney, Cross-Cutting Issues Law Office Office of General Counsel U.S. Environmental Protection Agency 202-564-5479 bangser.paul@epa.gov

ED_001057_00014352

From: Stahle, Susan

Sent: Thursday, January 28, 2016 9:20 AM

To: Bangser, Paul bangser.paul@epa.gov; Wehling, Carrie Wehling, Carrie@epa.gov>

Cc: Doster, Brian < Doster. Brian@epa.gov>

Subject: FW: Discussion of PAG Manual Finalization - need WLO comments by tomorrow (January 29)

Hi-

Just a quick reminder about this project. We are hoping to meet our clients' deadline which is for us to get them our comments by tomorrow (January 29). I have comments from SWERLO and I am working on my own review right now.

Will you be able to send me WLO's comments (if any) by tomorrow? If you could do so by 1:00 pm I can incorporate them and send a collective version to ORIA.

Please let me know.

Thanks.

Susan Stahle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-1272 (ph)
202-564-5603 (fax)
stahle.susan@epa.gov

From: Doster, Brian

Sent: Wednesday, January 06, 2016 9:20 AM

To: Wehling, Carrie Wehling.Carrie@epa.gov">Wehling, Carrie@epa.gov; Bangser, Paul Bangser.paul@epa.gov; Openchowski, Charles Openchowski, Charles@epa.gov; Tyner, Lee Tyner, Lee Tyner, Lee Tyner, Lee Tyner.lee@epa.gov; Salo, Earl

<<u>Salo.Earl@epa.gov</u>>; Lewis, Jen <<u>Lewis.Jen@epa.gov</u>>; Michaud, John <<u>Michaud.John@epa.gov</u>>

Cc: Stahle, Susan <Stahle.Susan@epa.gov>

Subject: FW: Discussion of PAG Manual Finalization

They have moved the due date for comments back two weeks to 1/29. I think we should be certainly be able to complete our comments by this time. If you have any other thoughts on

this schedule, please let me know by 1 pm today. Also, if you would like to join the OD level meeting, let me know, and I can send you the location and dial in information.

From: Edwards, Jonathan

Sent: Tuesday, January 05, 2016 5:30 PM

To: Flynn, Mike <Flynn.Mike@epa.gov>; Woolford, James <<u>Woolford.James@epa.gov</u>>; Cheatham, Reggie <<u>cheatham.reggie@epa.gov</u>>; Hostage, Barbara <<u>Hostage.Barbara@epa.gov</u>>; Nanko, Lisa <<u>Nanko.Lisa@epa.gov</u>>; Stahle, Susan <<u>Stahle.Susan@epa.gov</u>>; DeCair, Sara <<u>DeCair.Sara@epa.gov</u>>; Raffaele, Kathleen <<u>raffaele.kathleen@epa.gov</u>>; Doster, Brian <<u>Doster.Brian@epa.gov</u>>; Tulis, Dana <<u>Tulis.Dana@epa.gov</u>>; Cogliano, Gerain <<u>Cogliano.Gerain@epa.gov</u>>; Caraballo, Mario <<u>Caraballo.Mario@epa.gov</u>>

Cc: James, Kennetta < <u>James. Kennetta@epa.gov</u>>; Holden, Patricia < <u>holden.patricia@epa.gov</u>> Subject: RE: Discussion of PAG Manual Finalization

Hey folks --- We are looking forward to our PAGs follow-up discussion tomorrow (Wednesday) at 1pm. After hearing your thoughts during the discussion before the holidays, and after doing some checking with the Office of Policy, we have reworked the schedule and have attached it below, along with an update of the internal EPA contacts and the federal interagency contacts. See you tomorrow. -Jon

<< File: Finalize PAG Manual 1-5-2016.docx >> << File: Finalization groups 12-21-2015.docx >>

----Original Appointment-----

From: Flynn, Mike

Sent: Thursday, December 17, 2015 3:08 PM

To: Flynn, Mike; Woolford, James; Cheatham, Reggie; Hostage, Barbara; Nanko, Lisa; Stahle, Susan; DeCair, Sara; Raffaele, Kathleen; Doster, Brian; Tulis, Dana; Cogliano, Gerain; Caraballo, Mario; Edwards, Jonathan

Cc: James, Kennetta; Holden, Patricia

Subject: Discussion of PAG Manual Finalization

When: Wednesday, January 06, 2016 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: WJC-W Conference Room 1317; Conference Line: Ex. 6 - Personal Privacy

Ex. 6 - Personal Privacy

Purpose: OD level discussion to agree on process

Scheduler:

Debbie Cheng 202-343-9569 To: Openchowski, Charles[openchowski.charles@epa.gov]; Anderson,

RobinM[Anderson.RobinM@epa.gov]

From: Walker, Stuart

Sent: Sat 9/3/2016 1:51:24 AM

Subject: FW: Revised Drinking Water PAG chapter
Draft DW PAG OGWDW 8-31 (002) Stuart comments.docx
Public Comments Draft DW PAG v2 Stuart comments.docx

fyi

From: Walker, Stuart

Sent: Friday, September 02, 2016 9:50 PM

To: Scozzafava, MichaelE < Scozzafava. MichaelE@epa.gov>

Cc: David Kappelman < Kappelman. David@epa.gov >; Nguyen, Lyndsey

<Nguyen.Lyndsey@epa.gov>

Subject: RE: Revised Drinking Water PAG chapter

Attached are my comments on the draft PAG and the summary of public comments.

In summary:

1. It is impossible to evaluate the public comments since OW/ORIA did not seem to tabulate the comments. Although there were 60,000 comments received, it appears that 58,000 of them were 2 form letters (which means it shouldn't be hard to figure out where they came out on various issues). Also OW/ORIA list only 23 stakeholders who commented, but it appears they looked at 100 comment letters out of 2000 separate comment letters not counting the form letters. Since some of the comments could be on policy, not scientific issues, it would be important for EPA to have a sense of the public position on these issues. As NAS stated in the 1999 TENORM Report

This committee offers the following comments on the issue of a limit on acceptable risk and, therefore, acceptable dose. First, the determination of an acceptable risk for any exposure situation clearly is entirely a matter of judgment (risk-management policy) which presumably reflects societal values.

Without knowing how commenters commented, EPA cannot evaluate how the comments might reflect societal values. Therefore, I recommend that the evaluation of the draft drinking water PAG should stop until OW/ORIA provide a proper accounting of the comments.

2. Although the changes to the drinking water PAG chapter are a slight improvement over what was put in the Federal Register for public comment, the levels of 100 and 500 mrem/yr are still not protective or acceptable, particularly since the concentrations that correspond to those levels are hundreds to millions of times higher than the MCL. I am concerned that EPA if issuing this document is setting up regional and state staff that implement it with another Flint/Gold King like debacle. If the comments from the general public and state and local officials were heavily in favor of 100 and 500 mrem/yr PAGs I might think that those levels actually represent societal values (although not legal ones), we cannot even see that small rationale for these PAG concentrations with the scant information that has been provided with this unreasonable timeframe for putting together our comments.

I will be reachable by cell phone next week while in Denver giving radiation risk assessment training. I could step out at some point when Fred is presenting. My cell number is 202-262-9986

From: Scozzafava, MichaelE

Sent: Thursday, September 01, 2016 7:17 AM

To: Walker, Stuart < <u>Walker.Stuart@epa.gov</u>>; Fitz-James, Schatzi < <u>Fitz-</u>

James.Schatzi@epa.gov>

Subject: FW: Revised Drinking Water PAG chapter

Here we go again

From: Fitz-James, Schatzi

Sent: Thursday, September 01, 2016 6:27 AM **To:** Walker, Stuart < <u>Walker.Stuart@epa.gov</u>>

Cc: Scozzafava, MichaelE < Scozzafava.MichaelE@epa.gov >

Subject: FW: Revised Drinking Water PAG chapter

From: Woolford, James

Sent: Wednesday, August 31, 2016 8:45 PM

To: Stalcup, Dana < Stalcup.Dana@epa.gov >; Fitz-James, Schatzi < Fitz-

James.Schatzi@epa.gov>; Scozzafava, MichaelE < Scozzafava.MichaelE@epa.gov>

Subject: FW: Revised Drinking Water PAG chapter

Sent from my Windows Phone

From: Grevatt, Peter Sent: 8/31/2016 5:25 PM

To: Woolford, James; Cheatham, Reggie; Neugeboren, Steven

Cc: Burneson, Eric; Christ, Lisa; Beauvais, Joel; Shapiro, Mike; Edwards, Jonathan; Greene,

Ashley; Perrin, Alan

Subject: Revised Drinking Water PAG chapter

Jim, Reggie and Steve,

Please see attached to this message the revised draft <u>drinking water radiation protective</u> action guidelines (in track changes and clean formats). **Ex. 5 - Deliberative Process**

Ex. 5 - Deliberative Process

Thanks very much for your assistance on this!

P. Grevatt

To: Walker, Stuart[Walker.Stuart@epa.gov]; Anderson, RobinM[Anderson.RobinM@epa.gov]

From: Openchowski, Charles
Sent: Thur 12/24/2015 4:24:10 PM

Subject: PAG manual

rad PAG manual 12.24.15.docx

Looks like they want to finalize this – one question I have is about language on p. 14 (among other places) referring to a risk-benefit type analysis – when you are back in the office, could we talk about this? thanks

Subject: Materials for

To: CN=John Michaud/OU=DC/O=USEPA/C=US@EPA CN=Mary-Kay

Lynch/OU=DC/O=USEPA/C=US@EPA

Cc:

From: CN=Tracy Sheppard/OU=DC/O=USEPA/C=US

Submit Time: 10/26/2011 18:00:29

I've condensed the 3-page DA briefing paper down to just over one page by taking out the issues that aren't really ours and culling most of the quotes from the letter or ORIA responses that I don't think were necessary to highlight our concerns.

SWERLO CONCERNS WITH ISSUES RAISED IN THE AUGUST 15

W M

CONCERNS WITH ISSUES RAISED IN THE AUGUST 15 LETTER.docx

Attached below is the draft PAGs manual and FR notice and the latest iteration of the long-term cleanup paper (NPP_RDD_IND_late phase_revised.docx) from September. Immediately below are Charles' comments and concerns on the late phase document. Many of Charles' concerns are raised in the enviros letter to the Administrator. I've incorporated some of Charles' and Stuart's' concerns into the 1 pager above.

(W) a

ATT7AE5C.docx

2011.docxATT35MRL.docx

2011.docx<u>ATTLKX8J.docx</u> phase_revised.docx

draft PAG Manual 6-27-



draft PAGs FR Notice 6-27-

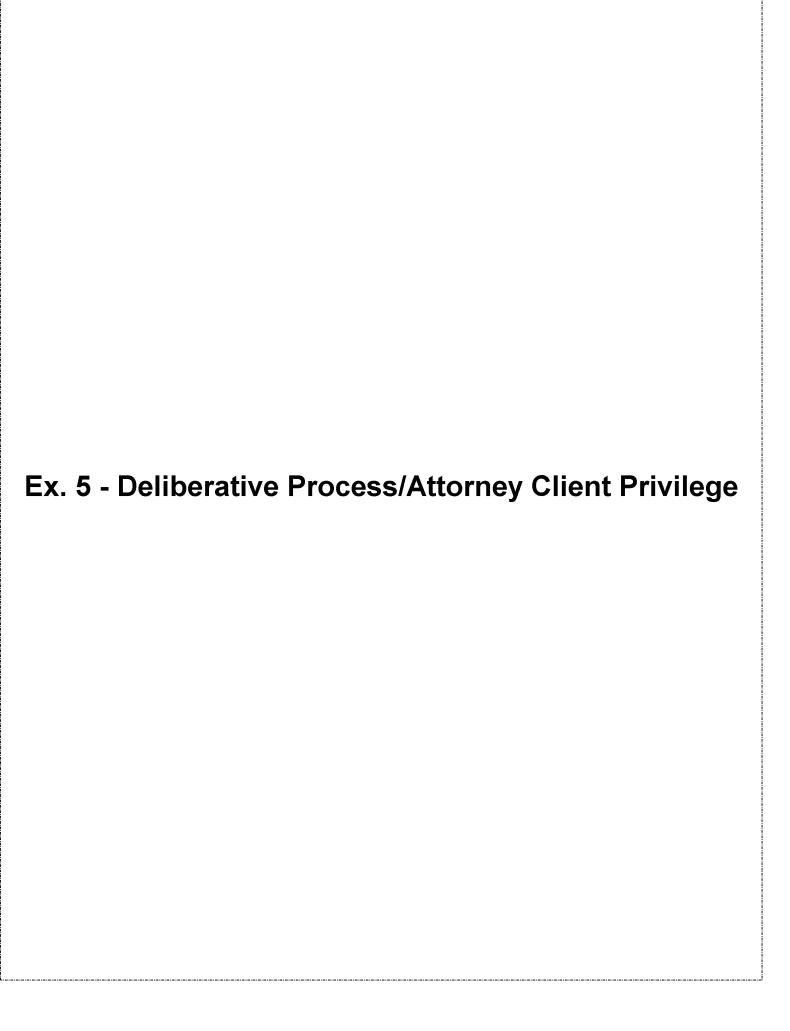
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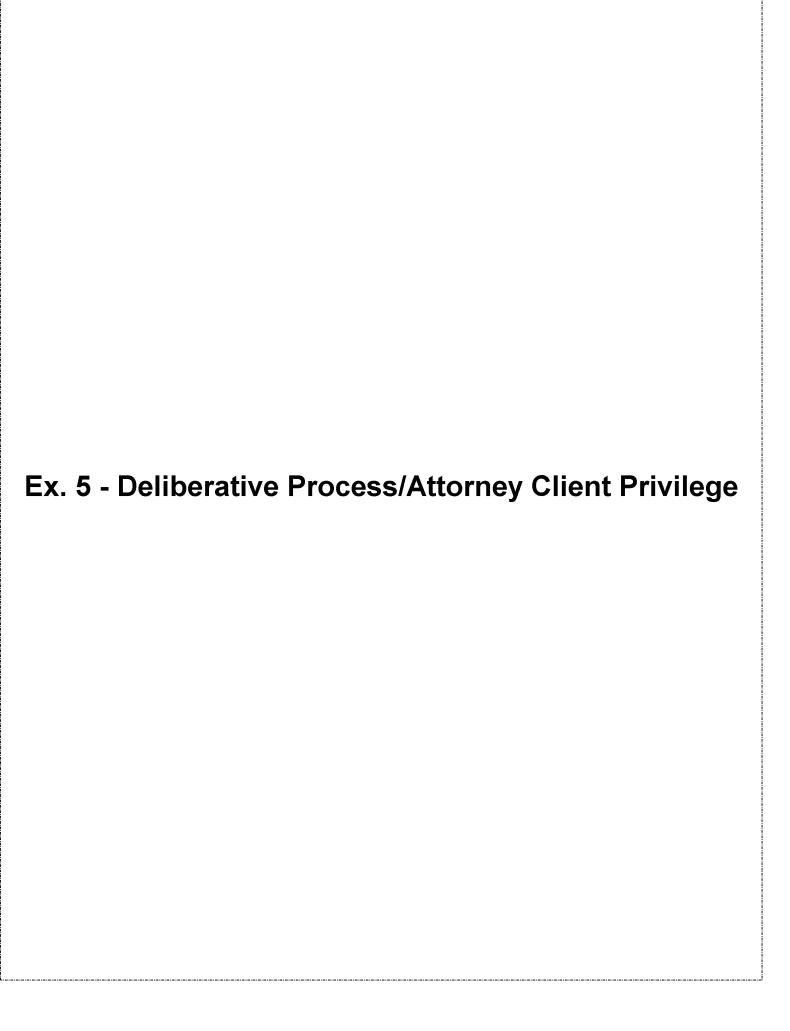


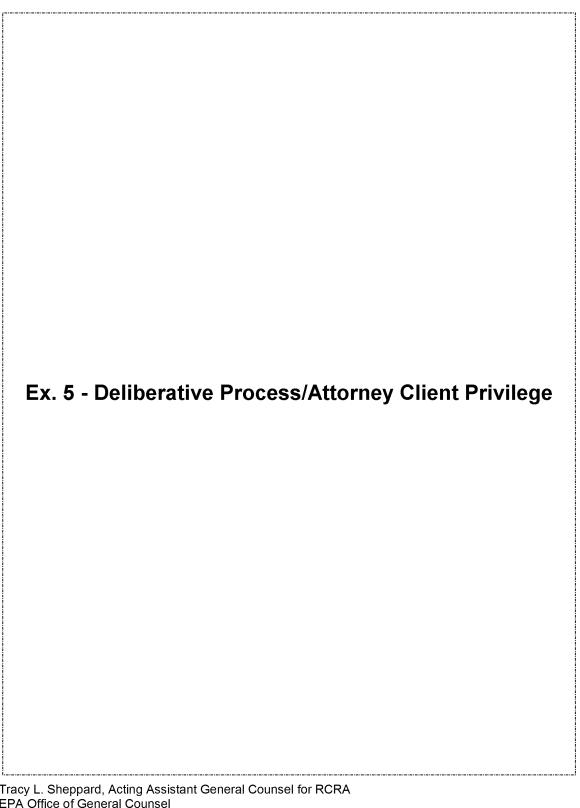
NPP_RDD_IND_late

Excernt from Charles' 9/07/11 email:

Ex. 5 - Deliberative Process/Attorney Client Privilege







Tracy L. Sheppard, Acting Assistant General Counsel for RCRA EPA Office of General Counsel Solid Waste and Emergency Response Law Office

1200 Pennsylvania Ave. NW (MC 2366A) Washington, DC 20004 202-564-1305 phone 202-564-3711 fax The Honorable Edward J. Markey Chairman, Subcommittee on Energy and the Environment 2108 Rayburn House Office Building Washington, DC 20515-2107

Dear Mr. Chairman Markey,

I am writing in response to your October 27, 2009 letter expressing concerns regarding certain U.S. Environmental Protection Agency (EPA) radiation standards and protective guidance which commenced under the previous Administration. I would like to assure you that EPA is dedicated to the use of sound science in the protection of public health and the environment in all our work, including radiation protection.

I have recently met with representatives from a number of environmental organizations to discuss some of these same concerns. As noted below in the responses to your questions, some of these concerns arise from a misunderstanding of the scientific peer review process that EPA is using to incorporate recent recommendations of the National Academy of Sciences (NAS) into radiation risk assessments. Other concerns are based on a reinterpretation of older radiation dose-based regulations in light of more recent improvements in radiation dosimetry that were unavailable when the regulations were originally issued. Finally, some concerns are focused on questions about EPA's efforts to update and broaden the scope of the Protective Action Guides Manual to include responses to acts of terrorism, including the provision of guidance for managing contaminated sources of drinking water and guidance on managing the longer range recovery actions following a catastrophic radiation contamination event. With the understanding that the documents you reference are currently undergoing review, we are providing the following answers to your specific questions in the attached document.

If you have further questions, please contact me or your staff may call Josh Lewis in EPA's Office of Congressional and Intergovernmental Relations, at 202-564-2095.

Sincerely,

Gina McCarthy, Assistant Administrator Office of Air and Radiation

Response to Blue Book and Federal Guidance Questions

1. What is the status of ORIA's proposed Blue Book that acts to reduce the radiation risk estimates from what was recommended by the NAS in the BEIR VII report?

EPA's Science Advisory Board (SAB) is nearing completion of its review of the draft Blue Book.

The current draft of the Blue Book is EPA's proposed approach for incorporating the recommendations of the National Academy of Sciences (NAS) into our next revision of cancer risk coefficients, eventually replacing those now found in Federal Guidance Report No. 13 (FGR 13).

The ORIA scientists who developed the draft Blue Book are following the Agency's scientific peer review process in their effort to complete this document. The peer review process is used to ensure that the findings in the draft Blue Book are sound and consistent with established science.

2. Why did ORIA title the White Paper "Modifying EPA Radiation Risk Models Based on BEIR VII", when in fact the revisions made to the risk models ignored BEIR VII findings? Why were the revisions that were made almost all in the direction of increasing permissible exposures compared to the guidance that would have resulted had the Academies' findings been adhered to?

The title of the White Paper accurately reflects its intent - to outline the plan for incorporating BEIR VII findings into the Blue Book.

Revisions to our risk models are always undertaken to reflect the best available science. Minor modifications to the methods used in BEIR VII were made only after careful deliberation, research, and consideration of advice from the EPA SAB and its Radiation Advisory Committee (RAC).

As evidence that EPA incorporated the BEIR VII findings, roughly one-half of the text in both the White Paper and the draft Blue Book describe methodology identical or closely related to that used in BEIR VII. The reports also contain several tables that document how results depend on potential modifications to methodology used in BEIR VII. The remaining half of each report relates to topics not covered in BEIR VII, including risks from high-Linear Energy Transfer radiation (alpha particles), prenatal exposures, and non-melanoma skin cancer. In both the White Paper and draft Blue Book, we took special care to document our reasoning for modifying and extending the BEIR VII approach.

In fact, the RAC made it very clear that, for almost all cancer sites, the proposed risk models in the White Paper are based on BEIR VII. In a letter from the RAC to the EPA Administrator dated January 31, 2008, "The RAC endorse[d] EPA's proposal to base its

approach to low dose risk estimation on BEIR VII." More specifically, the RAC "agree[d] with the EPA that the BEIR VII methodologies using incidence data should be used wherever possible and accept[ed] the EPA's use of BEIR VII methodologies for risk estimates for cancers of the stomach, colon, liver, prostate, uterus, ovary, bladder, other solid cancers, and leukemia."

As detailed in both the White Paper and draft Blue Book, EPA's revised radiogenic risk projections will be based on the two types of risk models defined in BEIR VII, relative risk and absolute risk. Since for most cancer sites there is no firm scientific basis for determining which of the two types of model would yield better estimates of risk, results obtained from the two models are combined. This is the same general approach that was used in BEIR VII. Most notably, in the White Paper and the subsequent draft Blue Book, the two risk models used for almost every cancer site are identical to the risk models used in BEIR VII.

To address your question of the difference in permissible exposure, the main reason the BEIR VII risk projections are larger than those in the draft Blue Book is that the BEIR VII risk models were applied to a generally younger population. The draft Blue Book proposes use of a "stationary population" (a hypothetical population that has the same number of births and deaths each year), which is different than the BEIR VII "Census population" (a snapshot of the U.S. population from the late 1990s). Use of this stationary population is most appropriate for calculating average risks to an individual from lifetime, chronic exposures and is consistent with Agency practices for estimating risk from other environmental carcinogens. In contrast, BEIR VII uses a Census population, which is most appropriate for calculating lifetime risks for acute exposures to an average individual in the U.S. population for a certain point in time (late 1990s). The Census population has a greater proportion of young people than the stationary population. The younger people in the Census population are subject to larger radiogenic risks, which is a primary cause for the larger BEIR VII risk projections.

It is especially noteworthy that, in its Advisory on the White Paper, the RAC "agree[d] that the proposed estimation of radiogenic cancer risks for the U.S. population using a standard stationary population, that is for a 'fixed cohort' based on death rates for the year 2000, is a reasonable adaptation of the BEIR VII approach." In response to public concerns, EPA's draft Blue Book provides a detailed discussion on the use of the stationary population, which is being reviewed by the SAB. In the RAC's August 20, 2009 draft Review document, the RAC again stated that "the RAC agrees with the EPA decision to use a stationary population rather than a Census-based population in LAR [Lifetime Attributable Risk] computations [and that] the reasons for this change were cogently described in the EPA staff presentation to the RAC."

The SAB response to the White Paper is available on the web at http://yosemite.epa.gov/sab/sabproduct.nsf/FD9963E56C66E4FF852573E200493359/\$File/EPA-SAB-08-006-unsigned.pdf. The draft Blue Book is available on the web at http://epa.gov/radiation/docs/assessment/draft-RGCRMPUSPv1.pdf.

3. Who was responsible for making the decision to reduce the risk estimates? Please provide all correspondence, including emails, letters, and memos that relate to the decisions to ignore the BEIR VII findings.

As described in the preceding response, the BEIR VII findings have not been ignored. Rather, they are the core of the science being proposed in the Blue Book. Since there was no decision to ignore the BEIR VII findings, there are no emails, letters or memos to that effect.

The principal reason why risk estimates in the current draft tend to be smaller than those used in BEIR VII is the use of a stationary population instead of a Census population. This choice is appropriate for calculating risks for constant lifetime exposure (dose), consistent with standard EPA risk assessment policy, and in agreement with the conclusions of the RAC Advisory.

The draft SAB RAC review of the Blue Book suggests moving to an arithmetic mean for combining risk projections from the two types of BEIR VII risk models. In view of this suggestion, it is likely that risk estimates for many cancer sites might be larger in the final Blue Book than in BEIR VII.

- 4. EPA bases its evaluation of compliance with most of its regulations limiting dose to the general public on the "Reference Man" standard a hypothetical Caucasian healthy young adult male occupationally exposed to radiation. This compliance assessment method is scientifically inappropriate because the vast majority of people, including women and children, fall outside the definition. The EPA has published a guidance report, FGR 13 that enables dose calculation by age.
- 4.a. Would you agree that, using FGR 13 published by EPA itself, children get higher doses of radiation in some cases from the same environmental conditions as an adult male even when lower intakes are taken into account? Why or Why not?

Under most circumstances, the same environmental conditions will give similar or lower doses to children. However, the risk per unit dose for most radionuclides is higher for children than for adults. The net effect is that children receive more lifetime cancer risk than adults from the same dose of radiation.

4.b. Why is the EPA not enforcing regulations to protect all individuals, including children? For instance, why is the EPA allowing compliance with the Clean Air Act to be demonstrated by calculating doses only for Reference Man just for the sake of "consistency" with past practices?

Many of EPA's early dose-based regulations were developed using the older reference individual approach, called Reference Man, because that was the best science available at the time. Most of the radiation standards developed by EPA under the authority of the Atomic Energy Act (AEA) are implemented and enforced by the Nuclear Regulatory Commission (NRC) or NRC Agreement States. NRC's implementation and enforcement

strategies rely on the As Low As Reasonably Achievable (ALARA) approach, usually resulting in doses to the public that are far enough below established dose limits to be protective of all age groups. Similarly, because the Clean Air Act (CAA) required that national emission standards for hazardous air pollutants, which include radionuclides, provided an ample margin of safety for members of the public, EPA believes that its standards developed using the Reference Man approach remain protective for the most vulnerable members of the population.

Nevertheless, EPA realizes that we have the responsibility for demonstrating that the existing standards are being enforced in a manner that is fully protective for all members of the public and are consistent with statutory and regulatory language. We are currently evaluating these older regulations to determine whether compliance with them is still adequate. We expect to complete a preliminary analysis of the older dose-based regulations in 2010. In our previous discussions with Dr. Freedhoff of your staff, we assured her that your office will be kept informed of our progress towards analyzing and updating, where appropriate, the applicable regulations.

4.c. Do you believe that calculations of exposure doses and compliance should be based on the most exposed individual, thereby increasing public protection? Please explain.

In responding to this question, it is important to make the distinction between managing chronic exposure to low levels of radiation over many years and managing acute exposure to higher levels of radiation over shorter periods of time. In order to protect the general population from chronic exposure to low levels of radiation in the environment, we typically assess the exposure to an age-averaged reasonably maximally exposed individual. For assessment of acute exposures to special populations, we would recommend using age- and gender-specific data.

4.d. If the EPA agrees that children should be protected along with the rest of the population, when is the EPA going to begin enforcing existing annual dose limits to require the calculations of dose to the most exposed individual, regardless of age?

The answer to this question is partly covered in 4.b. Even though the language in some older rules limits annual doses to "any member of the public," the standards were derived with the intent to protect individuals over a lifetime of exposure. I can assure you that the question of compliance with "any member of the public" standards is being addressed now within ORIA and we will have follow-up information for you in 2010, with the preliminary analysis of older dose-based rules.

- 5. It is my understanding that some EPA Guidance documents, like FGR 11 and 12 rely on Reference Man, while FGR 13 contains age specific data that is averaged for males and females.
- 5.a. For internal dose, why does the EPA still allow the use of the older FGR 11, which is based on Reference Man, when it has the updated FGR 13, which enables calculations of dose by age?

EPA, like NRC and the States, has been using the internal dose conversion factors in FGR 11 for the last 20 years. The methodology used in FGR 11 has been codified in numerous federal and state regulations, such as 10 CFR part 20. There is now a multiagency effort underway to move to a newer dosimetry system recently published by the International Commission on Radiological Protection (ICRP). EPA and NRC are cofunding an effort at Oak Ridge National Laboratory to provide technical support for updating FGR 11. In the mean time, whenever appropriate, EPA encourages the use of the more up-to-date dose conversion factors published in the compact disc supplement to FGR 13. For example, the EPA Superfund program's guidance for risk and dose assessment uses FGR 13 slope factors and dose conversion factors.

5.b. When does the EPA plan on updating FGR 12 using gender and age specific dose conversion factors? Please provide a detailed timeline.

The current timeline calls for EPA having a technical draft completed by September 2010. There will then be an opportunity for interagency and external peer review. EPA also will prepare a communication strategy for informing stakeholders. If there is sufficient interest by stakeholder groups, EPA also may provide a formal public comment period. Following these reviews, a revised FGR 12 is expected in 2011.

5.c. When does the EPA plan to revise FGR 13 to include separate dose conversion and risk factors for males and females by age? Please provide a proposed timeline.

Currently, the Blue Book is under review by the SAB. Upon completion of the SAB review and publication of the Blue Book, EPA plans to update FGR 13. This open public process could take 2 to 3 additional years to complete.

5.d. Does the EPA have plans to develop and publish fetal dose conversion factors? Why or Why not?

Fetal dose conversion factors are not planned for the update to FGR 11; however, the ICRP is in the process of developing a 3-dimensional model for assessing fetal dose. When this becomes available, EPA will consider incorporating the findings in a future update to our internal dose conversion factors. Current fetal protection is accomplished through controlling the doses to the general public and to declared pregnant workers.

6. BEIR VII stated that there is mounting evidence that X-rays and low-energy betas like tritium are more dangerous than previously thought (producing more cancers per unit dose than the standard risk estimates), concluding: "It may be desirable to increase risk estimates in the report by a factor of 2 or 3 for the purpose of estimating risks from low-dose X-ray exposure." However, the Radiation Advisory Committee, in reviewing the draft Blue Book, recommended that EPA not upgrade the risk estimates at the time but rather study the matter further, in what could be a long, drawn-out process. Members of the Science Advisory Board questioned this recommendation, asking why EPA should continue using values it knows are wrong and too low.

6.a. Is the EPA going to act on BEIR VII scientific findings by tightening prior exposure and environmental concentration limits for tritium and X-rays by at least a factor of 2? Why or Why not?

As part of its response to the BEIR VII findings, EPA has proposed raising the relative biological effectiveness (RBE) factor for low energy photons and beta rays. We have not received the final recommendations from the SAB, but a recommendation on its part to raise the RBE would be consistent with EPA's proposed approach in the draft Blue Book.

6.b. As I understand, to compare the biological risk of different types of radiation it is customary to calculate the relative biological effectiveness (RBE) using X-rays as the reference standard. Does the EPA believe it is ethical to continue to use a RBE factor of one for X-rays, when in fact it is known that the RBE is greater than 1? Please explain, particularly in light of the very large collective X-ray doses being received by the U.S. population due to widespread use of CT scans in medicine.

For patient doses, where the x-rays are used for diagnosis or treatment, dose limits do not apply. The system of radiation protection, as promoted internationally by the ICRP and nationally by the National Council on Radiation Protection and Measurements (NCRP), requires the prescribing physician to both justify that the x-ray procedure is needed and to optimize the dose from the procedure. Therefore, if a medical x-ray procedure is justified and the machine settings are optimal, appropriate radiation protection measures have been applied. The medical community may determine that the question of RBE warrants placing even greater emphasis on justification and optimization of exposure. However, EPA supports the view that the RBE would be considered primarily when managing occupational or public exposures to non-medical x-rays.

6.c. Is there evidence that the RBE factors for X-rays and low energy beta radiation to fetuses are higher than the range of 2 to 3? If there is such evidence, what is the EPA going to do to better protect pregnant women from these sources?

EPA's proposed estimate of risk associated with fetal irradiation is directly derived from studies of excess childhood cancers among individuals receiving prenatal medical X-rays. Thus, no adjustment for RBE is required.

Response to Protective Action Guides Questions

1. What is the status of the PAGs review by the new EPA leadership? Please provide a detailed timeline and any preliminary conclusions.

Proposed revisions to the 1992 Protective Action Guides Manual (1992 PAGs Manual) are undergoing review by the new Administration. This review process includes collaboration between EPA's Office of Air and Radiation, Office of Water, Office of Solid Waste and Emergency Response, and Office of General Counsel. We have no timeline for the PAGs review process.

EPA's 1992 PAGs Manual contains the Agency's existing guidance to radiological emergency responders; it can be found at http://www.epa.gov/radiation/docs/er/400-r-92-001.pdf.

2. Will you decline to approve the ORIA proposal increasing permissible concentrations of radioactivity in drinking water after a radioactive release by factors of thousands, or more, compared to longstanding EPA maximum contaminant levels (MCLs)?

Proposed revisions to the 1992 PAGs Manual, including the proposed drinking water guidance, are undergoing review by the new Administration. This review process includes collaboration between EPA's Office of Air and Radiation, Office of Water, Office of Solid Waste and Emergency Response, and Office of General Counsel. At this point, we have not made any final decisions.

We would like to clarify that all doses mentioned in the 1992 PAGs Manual are projected doses to be avoided. Scientists use formulas in the 1992 PAGs Manual during large-scale radiological incidents to forecast future radiation doses. State, local or tribal decision makers use the Manual to determine appropriate protective actions to take to ensure the predicted doses are not reached. Because responders are expected to take the suggested actions in the 1992 PAGs Manual before a forecasted dose is reached, people are not expected to receive the forecasted dose.

Additionally, the 1992 PAGs Manual provides guidance only. The 1992 PAGs Manual states that emergency managers are encouraged to take any applicable and feasible precautionary measures to keep dose to the public as low as possible. The guidance in the 1992 PAGs Manual helps decision makers transition from initial emergency response needs until it is possible to return to pre-disaster, day-to-day expectations.

3. Who was responsible for producing the calculations for the proposed water concentrations? How were these calculations reached? Please provide documentation supporting the method used and all correspondence leading to the decision to adopt this methodology.

The methods for calculating the proposed water concentrations were developed by the interagency Federal Radiological Monitoring and Assessment Center (FRMAC) Assessment Working Group and Sandia National Laboratories. The FRMAC is a Department of Energy (DOE)-led, interagency asset that is available on request to respond to nuclear/radiological incidents. It is responsible for coordinating all environmental radiological monitoring, sampling, and assessment activities and normally includes representation from federal, state and local radiological response organizations.

EPA's Office of Radiation and Indoor Air staff performed the calculations for the proposed water guidance using the FRMAC methods as well as dosimetry and radiation risk assumptions from the International Commission on Radiological Protection (ICRP) Publication 60 and EPA's Federal Guidance Report 13 CD Supplement. The FRMAC methodology is described in the FRMAC Assessment Manual, which can be downloaded

at http://www.nv.doe.gov/nationalsecurity/homelandsecurity/frmac/manuals.aspx. Turbo FRMAC software can be requested at http://ipal.sandia.gov/ip_details.php?ip=7460.

The proposed PAGs revisions were developed in coordination with the Federal Radiological Preparedness Coordinating Committee (FRPCC) PAGs Subcommittee, composed of representatives from nine federal agencies. The FRPCC provides a national-level forum for the development of policy guidance for federal radiological incident management activities in support of state, local and tribal government radiological emergency planning and preparedness.

EPA's new Administration is reviewing the proposed addition of drinking water guidance into the 1992 PAGs Manual. At this point, we have not made any final decisions.

4. How could EPA possibly abandon its longstanding cleanup standards and acceptable risk range and propose adopting an "optimization" process whereby long-term cleanup standards could be as high as 10 rem per year, a 1 in 4 cancer risk over 30 years of exposure- orders of magnitude higher than EPA's longstanding acceptable risk range of 1 in 10,000 to one in a million? Why should people who have been subject to a nuclear incident be further subjected to a relaxation of the standards EPA has previously deemed safe?

Proposed revisions to the 1992 PAGs Manual are undergoing review by the new Administration. This review process includes collaboration between EPA's Office of Air and Radiation, Office of Water, Office of Solid Waste and Emergency Response, and Office of General Counsel. At this point, we have not made any final decisions.

5. Is the EPA concerned that the "optimization" plans could set a precedent that would lead to less protective standards being applied to a broad range of scenarios, thereby causing an erosion of EPA public health protection standards? Please explain.

EPA's new Administration is reviewing the proposed addition of the optimization process into the PAGs Manual for use in addressing late phase recovery efforts. EPA leadership is sensitive to the need to ensure that guidance issued to support temporary action during an extraordinary situation will not be misconstrued as a weakening of EPA's adherence to current and historic risk management standards. At this point, we have not made any final decisions.

6. Will EPA withdraw its support for the use of optimization in other types of events, e.g., the controversial "dirty bomb" guidance issued during the previous Administration by a taskforce including EPA and the Department of Homeland Security, and EPA-DHS recent draft guidance for bioterrorism events? Why or Why not?

As noted, the new EPA leadership is reviewing the proposed revisions to the PAGs Manual, which includes the optimization process. This review will include consideration

of the use of optimization for RDD and IND incidents under the guidance that was issued by DHS. Additional interagency discussions, including with DHS, may be needed.

The Obama Administration recently issued draft guidance for bioterrorism events for public review and comment. The draft guidance provides an optimization process for cleanup after a bioterrorism event. The Administration will be reviewing the public comments received on the guidance, including those related to the optimization process, before determining the appropriate course of action.

7. In September 2009, EPA issued new guidance on optimization following a radiological incident. Why would EPA do this, when this controversial approach from the prior Administration was supposed to be under review by the new Administration?

A draft internal guidance document, "EPA Guidance on the Optimization Process Following a Radiological Dispersal Device or Improvised Nuclear Device Incident" has been in development as a result of a DHS tasking to EPA after the TOPOFF 4 radiological response exercise in 2007. This document is intended for use only by EPA personnel regarding potential methods for how to integrate technical expertise and stakeholder input, using DHS's optimization process following a large scale RDD or IND event. The new Administration will be reviewing this guidance as part of its overall review of the optimization process for radiological incidents.

John, no problem at all. We will put that sentence in.

Debbie Dietrich Associate Administrator for Homeland Security USEPA 1200 Pennsylvania Avenue, NW Washington, DC 20460 Ph 202-564-6978 Fax 202-501-0026

John Michaud---06/01/2012 01:41:39 PM---Debbie -- With the exception of fn 30 on page 42 of a 72 page document, the "disclaimers" are generi

From: John Michaud/DC/USEPA/US
To: Debbie Dietrich/DC/USEPA/US@EPA
Date: 06/01/2012 01:41 PM

Subject: Re: Fw: Legal disclaimers in PAGs

Ex. 5 - Deliberative Process/Attorney Client Privilege

I'm free now if you would like to discuss.

Thanks.

John R. Michaud
Deputy Associate General Counsel
Solid Waste and Emergency Response Law Office
Office of General Counsel
U.S. EPA, Washington, D.C.
Mail Code: 2366A
tel: 202-564-5518

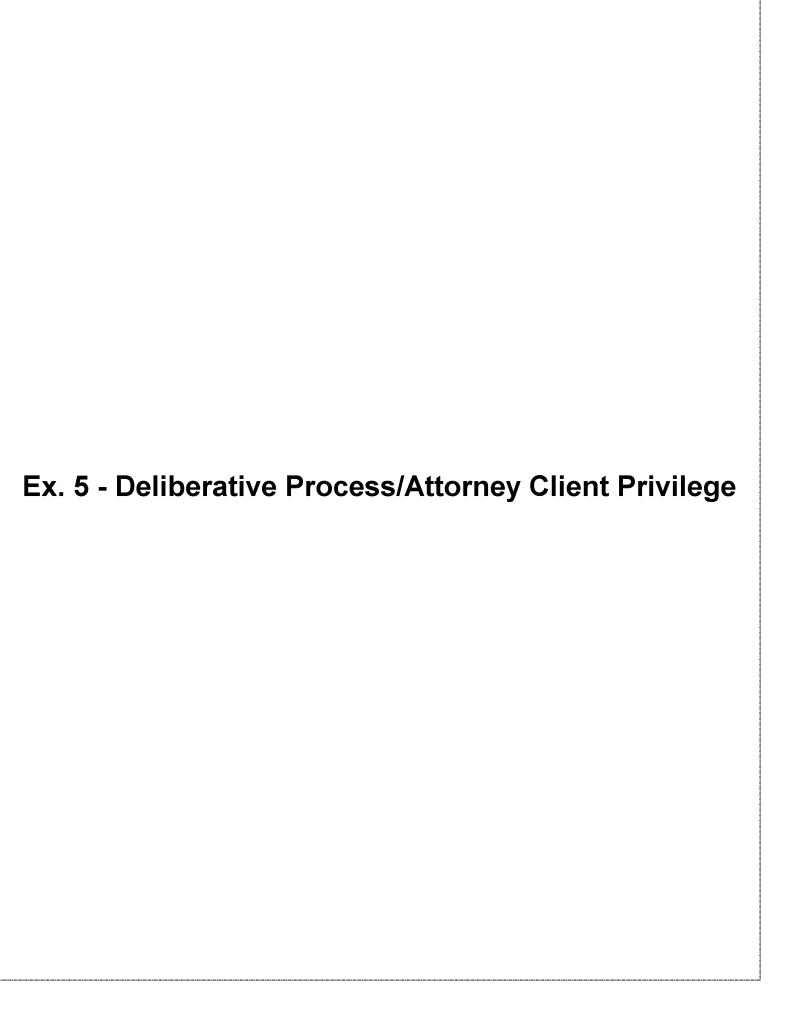
tel: 202-564-5518 fax: 202-564-5531

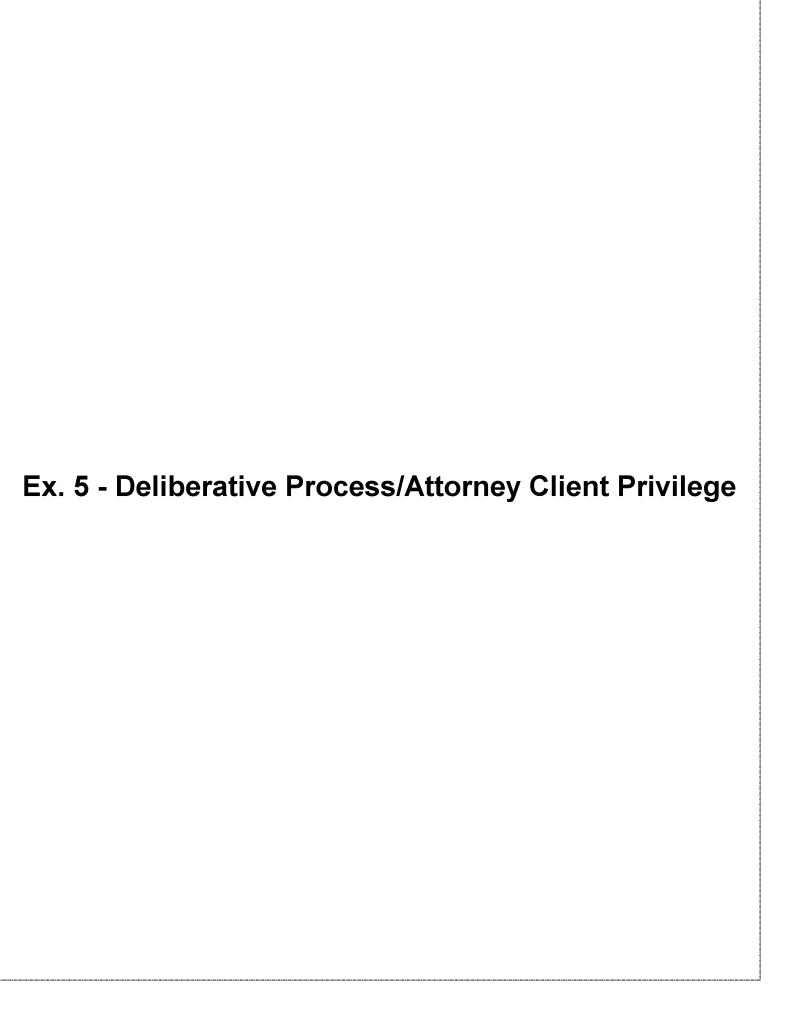
email: michaud.john@epa.gov

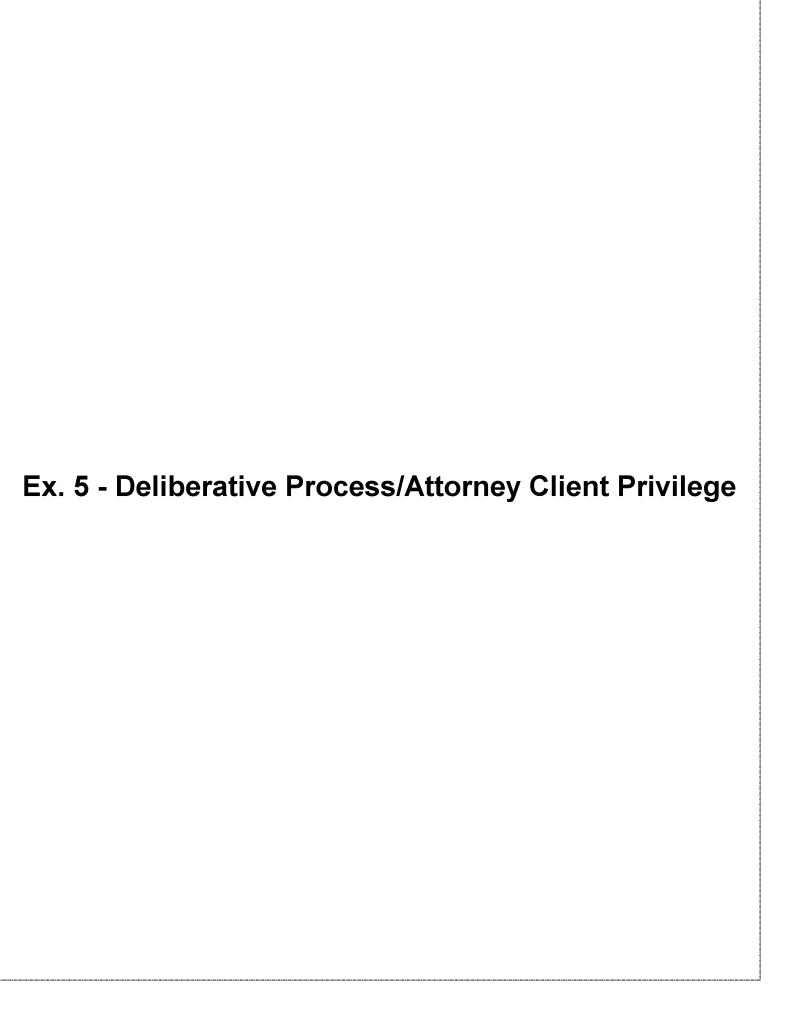
Debbie Dietrich---06/01/2012 01:14:29 PM---Hi John. Here is where we believe the document contains the appropriate disclaimers. Please let us

From: Debbie Dietrich/DC/USEPA/US
To: John Michaud/DC/USEPA/US@EPA

Date: 06/01/2012 01:14 PM







Subject: copy of August 2007 PAG - WARNING huge file - in case you need it

To: CN=Charles Openchowski/OU=DC/O=USEPA/C=US@EPA

Cc:

From: CN=Stuart Walker/OU=DC/O=USEPA/C=US

Submit Time: 8/27/2010 21:41:39



PAG Review Draft Clean 8-10-2007.pdf PAG Review Draft Clean 8-10-2007.pdf

Subject: drinking water

To: CN=Charles Openchowski/OU=DC/O=USEPA/C=US@EPA

Cc:

From: CN=Stuart Walker/OU=DC/O=USEPA/C=US

Submit Time: 5/23/2011 15:15:19

Drinking water quotes from DHS PAG (see pages 7-8 of pdf file)



DHS PAG final drinking water.pdf DHS_PAG_final drinking water.pdf

Federal Register/Vol. 73, No. 149/Friday, August 1, 2008/Notices

45035

TABLE 1—PROTECTIVE ACTION GUIDES FOR RDD AND IND INCIDENTS		
Phase	Protective action recommendation	Protective action guide
Early	Sheltering-in-place or evacuation of the public ^a .	1 to 5 rem (0.01–0.05 Sv) projected dose. ^b
	Administration of prophylactic drugs— potassium iodide. Administration of other prophylactic or decorporation agents ^d .	5 rem (0.05 Sv) projected dose to child thyroid. ∘≈
Intermediate	Relocation of the public	2 rem (0.02 Sv) projected dose first year. Subsequent years, 0.5 rem/y (0.005 Sv/y) projected dose. ^b
	Food interdiction	0.5 rem (0.005 Sv) projected dose, or 5 rem (0.05 Sv) to any individual organ or tissue in the first year, whichever is limiting.
	Drinking water interdiction	(0.5 rem (0.005 Sv) projected dose in the first year.

45036 Federal Register/Vol. 73, No. 149/Friday, August 1, 2008/Notices

because radiation levels are too high; however, a factory or office building in the same area could be used because occupancy times are shorter. Similarly, a highway could be used at higher contamination levels because the exposure time of highway users would be considerably less than the time spent by residents in a home.

The intermediate phase PAG for the interdiction of food is set at 0.5 rem (0.005 Sv) projected dose in the first year, and the intermediate phase PAG for the interdiction of drinking water is set at 0.5 rem (0.005 Sv) projected dose for the first year for RDD and IND incidents. These values are consistent with those now used or being considered as PAGs for other types of nuclear/radiological incidents.

The use of simple dose reduction

short period of time. However, if the impacted area is large, achieving low cleanup levels for remediation of the entire area, and/or maintaining existing land uses, may not be practicable.

land uses, may not be practicable.

It should be noted that an intermediate phase PAG is not equivalent to a starting point for development of the late phase cleanup process. However, contamination and radiation levels existing after an incident (e.g., concentrations, or dose rates), as well as actions already taken, provide practical starting points for further action and cleanup. The goal of cleanup is to reduce those levels as low as is reasonable. It is possible that final criteria for reoccupation at a given incident site may be either below or above the intermediate phase PAG dose value, since no dose or risk can for the

organizations), already have guidance and tools that may be used to help establish cleanup levels. The optimization process allows local decision makers to draw on the thought processes used to develop the dose and/or risk benchmarks used by these State, Federal, or other sources. These benchmarks, though developed within different contexts, may be useful for analysis of cleanup options. Decision makers might reasonably determine that it is appropriate to move up or down from these benchmarks, depending on the site-specific circumstances and balancing of other relevant factors.

In developing this Guidance, the Federal Government recognized that experience from existing programs, such as the EPA's Superfund program, the NBC's atondered for decomplishing Subject: Re: PAGs - file comparing most recent with previous version CN=Charles Openchowski/OU=DC/O=USEPA/C=US From: To: CN=Stuart Walker/OU=DC/O=USEPA/C=US@EPA Cc: Submit Time: 5/25/2012 14:21:37 hi Stuart, thanks for sending the compare version along, here are the comments I have so far on the two documents -- thanks ----Stuart Walker/DC/USEPA/US wrote: ----To: Charles Openchowski/DC/USEPA/US@EPA From: Stuart Walker/DC/USEPA/US Date: 05/25/2012 12:13PM Subject: PAGs - file comparing most recent with previous version fyi, redline/strikeout showing how the May version of the PAG compares with the March version. I figure this is useful for looking at Chapters 1-3, but useless for Chapter 4 (See attached file: Changes in 5-22PAG from previous version.docx) [attachment "Changes in 5-22PAG from previous version.docx" removed by Charles Openchowski/DC/USEPA/US]rad PAG manual FR notice 5.25.12.doc

5.25.12.doc

Subject: comments on the Fw: Revised PAGs Manual and FRN
To: CN=Charles Openchowski/OU=DC/O=USEPA/C=US@EPA

Cc:

From: CN=Stuart Walker/OU=DC/O=USEPA/C=US

Submit Time: 3/30/2012 23:06:39

I want to give this to Barnes on Monday, since I am trying to stay out of the office most of spring break. Let me know if you have any comments.

Barnes, attached are my redline/strikeout edits on the three ORIA word documents, with some explanatory comments in the margins.

PAGs outline 3-27-

12 stuart redline 3 30 12.docx

PAGs_outline_3-27-

12_stuart_redline_3_30_12.docxDraft PAGs-FR 3-27-12 cleanStuart redline 3 30 12.docx

12 cleanStuart redline 3 30 12.docx

Draft

PAGs-FR_3-27-12_cleanStuart_redline_3_30_12.docxDraft PAGs-Combined-Doc 3-27-

12 clean Stuart redline 3 30 12.docx



Draft_PAGs-Combined-Doc_3-27-

12_clean_Stuart_redline_3_30_12.docx

I had several major comments if this approach were taken:

Ex. 5 - Deliberative Process

---- Forwarded by Stuart Walker/DC/USEPA/US on 03/30/2012 10:56 PM -----

From: Stuart Walker/DC/USEPA/US

To: Charles Openchowski/DC/USEPA/US@EPA

Date: 03/30/2012 12:50 PM

Subject: Fw: Revised PAGs Manual and FRN

not sure if you got this

---- Forwarded by Stuart Walker/DC/USEPA/US on 03/30/2012 12:49 PM -----

From: Barnes Johnson/DC/USEPA/US

To: Phyllis Anderson/DC/USEPA/US@EPA, Bruce Means/DC/USEPA/US@EPA, Helen

Dawson/DC/USEPA/US, Stuart Walker/DC/USEPA/US@EPA

Cc: James Woolford/DC/USEPA/US@EPA, Thea Williams/DC/USEPA/US@EPA, Jennifer

Wilbur/DC/USEPA/US@EPA Date: 03/29/2012 02:55 PM

Subject: Fw: Revised PAGs Manual and FRN

Here you go; this time with the attachments!

Barnes Johnson | U.S. Environmental Protection Agency | Superfund | Tel 703 603 8960 | Fax 703 603 9146 | johnson.barnes@epa.gov

---- Forwarded by Barnes Johnson/DC/USEPA/US on 03/29/2012 02:53 PM -----

From: Alan Perrin/DC/USEPA/US

To: Debbie Dietrich/DC/USEPA/US@EPA, Barnes Johnson/DC/USEPA/US@EPA, Larry

Stanton/DC/USEPA/US@EPA, Dana Tulis/DC/USEPA/US@EPA, Elizabeth Southerland/DC/USEPA/US@EPA, Eric Burneson/DC/USEPA/US@EPA, John

Michaud/DC/USEPA/US@EPA, Susan Stahle/DC/USEPA/US@EPA
Cc: James Woolford/DC/USEPA/US@EPA, Mike Flynn/DC/USEPA/US@EPA, Jonathan

Edwards/DC/USEPA/US@EPA, Lee Veal/DC/USEPA/US@EPA, Sara

DeCair/DC/USEPA/US@EPA Date: 03/28/2012 01:17 PM

Subject: Revised PAGs Manual and FRN

Intra-agency colleagues and PAGs reviewers,

Last week, many of us met to discuss the option of combining the draft PAGs Manual (currently in review at OMB) with the Deputies papers into a single document to go out in the FR for public comment. A number of strong reasons supporting this option were mentioned; a number of them have been captured in the attached PAGs_outline file, along with an outline of the proposed document and a timeline for moving this option forward. ORIA's next step from the meeting was provide draft revisions of the combined document and its FR for your review and concurrence.

The revised draft Federal Register Notice and Planning Guidance and Protective Action Guides for Radiological Incidents manual and the associated draft revision of its Federal Register Notice of Availability for Public Comment are attached. Since the language in the PAGs and Deputies papers has already been approved at a high level, great care was taken to minimize edits, however some edits were made to purge personal pronouns, rationalize internal references (e.g., this paper) and remove inconsistencies in terminology. The majority of new text in this revision functions to introduce the inclusion of new chapters/sections within the document Overview, and to provide bridging language that accommodates the fit and feel of the newly added papers.

We know we still have formatting issues; that and items like the TOC, layout of the Matrix, and pagination will be addressed after this review is complete, so please ignore those details for now. Instead, I hope you'll provide feedback especially on the new title, references to the new document itself within the text, connecting language and any suggestions to provide additional clarity on the new sections.

Please provide your **concurrence/comments** via email to me and to Sara DeCair, by **noon on Friday**, **April 6**. I'm sending the draft documents in pdf format showing all edits that have been made and in a clean version that incorporates those edits. If you have comments or suggestions, please reflect them directly in the clean document. Let us know if you have any concerns, and thank you for providing your input.

[attachment "PAGs_outline_3-27-12.docx" deleted by Stuart Walker/DC/USEPA/US] [attachment "Draft_PAGs-FR_3-27-12_edits.pdf" deleted by Stuart Walker/DC/USEPA/US] [attachment "Draft_PAGs-FR_3-27-12_clean.docx" deleted by Stuart Walker/DC/USEPA/US] [attachment "Draft_PAGs-Combined-Doc_3-27-12_edits.pdf" deleted by Stuart Walker/DC/USEPA/US] [attachment "Draft_PAGs-Combined-Doc_3-27-12_clean.docx" deleted by Stuart Walker/DC/USEPA/US]

Regards, Alan

~~~~~~~

Alan Perrin, Deputy Director Radiation Protection Division, USEPA office (202) 343-9775 | bb (202) 279-0376 Subject: draft comments on PAG Manual

To: CN=Charles Openchowski/OU=DC/O=USEPA/C=US@EPA CN=RobinM

Anderson/OU=DC/O=USEPA/C=US@EPA

Cc:

From: CN=Stuart Walker/OU=DC/O=USEPA/C=US

**Submit Time:** 5/25/2012 15:11:57

Note, I am just starting to look over the PAG FR notice, but here is my first draft of comments on the PAG

Hi Barnes,

### Ex. 5 - Deliberative Process

Here are my redline/strikeout suggested edits and explanatory comments on the PAG Manual. Draft 2012 PAG Manual 5-22-2012 Stuart

comments.doc

Stuart comments.doc

Draft 2012 PAG Manual 5-22-2012

Here I have yellow highlighted language that was deleted from the White House white paper when ORIA incorporated it into the PAGs.

White House white paper yellow highlights.pdf House white paper yellow highlights.pdf White

## Ex. 5 - Deliberative Process

DHS PAG final yellow highlights showing Framework

language.pdf

highlights showing Framework language.pdf

DHS PAG final yellow

Subject: PAGs Manual, FR, and anticipated OGC lingo

To: CN=Lee Veal/OU=DC/O=USEPA/C=US@EPA CN=Alan

Perrin/OU=DC/O=USEPA/C=US@EPA CN=Jonathan Edwards/OU=DC/O=USEPA/C=US@EPA

Cc: CN=Darrell Liles/OU=DC/O=USEPA/C=US@EPA CN=Susan

Stahle/OU=DC/O=USEPA/C=US@EPA

From: CN=Sara DeCair/OU=DC/O=USEPA/C=US

**Submit Time:** 5/18/2011 17:52:46

#### Ex. 5 - Deliberative Process



draft pags fr notice 5-18-2011.doc draft pags fr notice 5-18-2011.doc DraftPAGManual 5-18-



2011.doc DraftPAGManual 5-18-2011.doc

# Ex. 5 - Deliberative Process

Thanks all,

Sara

\*hopeful\*